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No. 87-180

Supreme Court, U.S.
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# In the Supreme Court

OF THE

# United States

OCTOBER TERM, 1986

ELBERT B. SCHINMANN AND TEDDIE SCHINMANN,
*Petitioners,*

VS.

THE UNITED STATES,
*Respondent*

H.F. ALLEN ORCHARDS, et al.,
*Petitioners,*

VS.

THE UNITED STATES,
*Respondent*

## APPENDIX TO PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

BURTON J. GOLDSTEIN
Counsel of Record
GOLDSTEIN, BARCELOUX & GOLDSTEIN
650 California Street, 25th Floor
San Francisco, CA 94108
Telephone No.: (415) 433-3000

BRYAN G. EVENSON
HALVERSON & APPLEGATE, INC., P.S.
311 North Fourth Street
P.O. Box 526
Yakima, Washington 98907-0526
Telephone No.: (509) 575-6611

*Attorneys for Petitioners*

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**Appendix A**

Not for Publication

United States Court of Appeals

For the Ninth Circuit

No. 85-4253
D.C. ## CV-82-064-JLQ

Elbert B. Schinmann and Teddie Schinmann,
Plaintiffs-Appellants,

vs.

United States of America,
Defendant-Appellee.

H.F. Allen Orchard, et al.,
Plaintiffs-Appellants,

vs.

United States of America,
Defendant-Appellee.

Appeal from the United States District Court
for the Eastern District of Washington
Honorable Justin L. Quackenbush, District Judge, Presiding
Argued and Submitted July 9, 1986 — Seattle, Washington

Memorandum*
[Filed Feb. 18, 1987]

Before: Tang, Pregerson and Alarcon, Circuit Judges.

* This disposition is not appropriate for publication and may not be cited to or by the courts of this circuit except as provided by 9th Cir. R. 21.

Farmers of the Yakima River Valley appeal the dismissal with prejudice of their tort action against the United States Government. The farmers claim that the Bureau of Reclamation of the U.S. Department of Interior committed hydrological malpractice when it inaccurately forecast a sharp reduction in the amount of irrigation water available for the 1977 season. The Bureau predicted 7% of the normal water supply but ultimately the Farmers received 83% which was adequate to meet 100% of their historic use. The farmers had relied on the erroneous forecast and took remedial actions—i.e. changing crops, selling cattle, investing in wells and additional irrigation equipment—which cost in excess of $20 million.

The district court granted summary judgment for the government, holding that the action was barred by the misrepresentation and the discretionary function exceptions to the Federal Tort Claims Act, 28 U.S.C. § 2680 (a)&(h). The court reasoned that a suit against the Government could not be maintained when the claim was for commercial or economic injury arising from the farmers' reliance on a negligent water supply forecast. The district court found "[t]he proximate cause of the loss to the farmers appear[ed] to have been the misrepresentation or communication of misinformation, not the erroneous calculation of figures." Because we agree that the misrepresentation exception deprives the court of subject matter jurisdiction, we affirm the grant of summary judgment without reaching the district court's alternative holding.

We review summary judgment de novo. *Planet Insurance v. Mead Reinsurance Corp.*, 789 F.2d 668, 670 (9th Cir. 1986). Summary judgment is proper when there is no genuine issue as to any material fact and the moving party is entitled to judgment as a matter of law. *Id.*

The tort of negligent misrepresentation is failure "to use due care in obtaining and communicating information upon which [a] party may reasonably be expected to rely in the conduct of his economic affairs." *United States v. Neustadt,* 366 U.S. 696, 706 (1961). The essence of an action for misrepresentation, whether negligent or intentional, is the communication of misinformation on which the recipient relies. *Block v. Neal,* 460 U.S. 289, 296

(1983). Under the FTCA, the Government is excepted from liability for "[a]ny claim arising out of . . . misrepresentation." 28 U.S.C. § 2680(h). The Supreme Court has stated that § 2680(h) "relieves the Government of tort liability for pecuniary injuries which are wholly attributable to reliance on the Government's negligent misstatements." *Block v. Neal,* 460 U.S. at 297. This court has found that the misrepresentation exception precludes liability where the plaintiff suffers economic loss as a result of a commercial decision which was based on a misrepresentation by the Government consisting either of false statements or a failure to provide information which it had a duty to provide. *Green v. U.S.,* 629 F.2d 581, 584-85 (9th Cir. 1980).

The farmers assert that the misrepresentation exception does not apply because the gravamen of their claims is not misrepresentation, but rather the negligent performance of an operational task. They allege that the government failed to use due care in its calculation of the water supply forecast by failing to include return flow in its calculations. This, they argue, was a "gross conceptual error." They contend that the Bureau is a prime actor rather than a regulator or inspector and its February, 1977 communication was merely a collateral announcement. Accordingly, the misrepresentation exception does not apply.

The farmers rely heavily on *Block v. Neal,* 460 U.S. 289. In that case, the Farmers Home Administration (FmHA) had undertaken to supervise construction, and to inspect, and approve new homes financed by FmHA loans. FmHA had the power to demand that the builder cure defects prior to tender. The FmHA approved Neal's house but the house later proved seriously defective. The builder refused to cure the defects and Neal sued FmHA under the FTCA. Citing *United States v. Neustadt,* 366 U.S. 696, FmHA defended on the ground that the misrepresentation exception to FTCA barred the suit. Neustadt had sued the Federal Housing Administration (FHA) because he overpaid for a house in reliance upon an negligently inflated FHA appraisal. The Court held that the negligent appraisal fell within the misrepresentation exception. The *Block* Court distinguished *Neustadt* because, in *Neustadt,* the essence of the claim was the government's failure to use due care in communicating informa-

tion. In *Block,* however, the FmHA had negligently failed to carry out its duty to supervise construction and its misrepresentation of the house's habitability was not essential to the plaintiff's claim.

Like *Neustadt,* the case at bar, fits squarely into the tort of misrepresentation. The essence of the farmers' claim is their reliance on the communication of misinformation to their economic detriment. But for the communication of the negligent forecast, the farmers would not have suffered injury. We might follow *Block* if the Bureau had negligently failed to deliver adequate water, or had been negligent in some similar capacity. But the Bureau's role here was solely in generating and disseminating information. The farmer's argument that the negligence occurred in the generation rather than the dissemination of the information is a distinction without a difference.

## CONCLUSION

We conclude the district court did not err in holding the farmers' tort action was barred by the discretionary function and misrepresentation exceptions to the FTCA.

AFFIRMED.

PREGERSON, Circuit Judge, concurring:

The broad sweep given the misrepresentation exception of the Federal Tort Claims Act (FTCA) by this court in *Green v. United States,* 629 F.2d 581 (9th Cir. 1980), compels me to concur in Judge Tang's opinion. I write separately to register my concern with what I consider to be an unjust result.

Irrigation water is the lifeblood of the farming economy of the Yakima Valley. For over half a century the government has held exclusive control over how much water the Yakima Valley farmers receive during the crucial summer months of the planting and growing season. The government's water flow decisions are themselves controlled by the terms of a consent decree. The farmers submitted a declaration from a respected hydrology expert that the consent decree's formulae involved nothing more than the

rote application of relatively straightforward mathematical principles involving no speculation, forecasting, or imponderables.[1]

The farmers' economic fate rested entirely in the government's hands. The farmers might have hired their own hydrology expert in April 1979 to check the veracity of the government's computations. But to penalize the farmers for failing to do so seems harsh indeed, especially given their reliance on the government justified by a longstanding relationship.

I appreciate that, when it passed the FTCA, Congress wished to shield the United States Treasury from paying out taxpayers' dollars to people who relied on speculative forecasts by federal agencies that later proved inaccurate. But I doubt that Congress intended to shield the government from liability for ruining the livelihood of farmers who depended entirely on a government official's rote application of a straightforward mathematical computation.

---

[1] The government disputed the expert's conclusions, and argued that several elements of the consent decree's formulae required "guesstimates" by Bureau of Labor Management officials. Because we are reviewing a summary judgment against the farmers, we must construe the evidence in the light most favorable to them.

## Appendix B

United States District Court
Eastern District of Washington

No. C-82-064-JLQ

Elbert B. Schinmann and Teddie Schinmann,
Plaintiffs,

vs.

United States of America,
Defendant

No. C-82-093-JLQ

H. F. Allen Orchards, Inc., et al.,
Plaintiffs,

vs.

United States of America,
Defendant

Order Granting Government's
Motion for Summary Judgment

[Filed Sept. 18, 1985]

Before the Court is the government's Motion for Summary Judgment (Ct. Rec. 21),[1] which came on for hearing with oral argument as scheduled September 9, 1985. Plaintiffs were represented by Bryan G. Evenson and Burton J. Goldstein; Assistant United States Attorney Robert M. Sweeney appeared on behalf of the government.

[1] All references herein to the record will use the court record numbers of the *Allen Orchards* case [C-82-093] rather than those of the consolidated *Schinmann* case. All pleadings relevant to this motion are identical in the two cases.

## FACTUAL BACKGROUND

This is a case brought under the Federal Tort Claims Act, 29 U.S.C. § 2671, *et seq.*, by about 159 farmers and irrigation system users in the Yakima Valley of South Central Washington for miscalculation by the Bureau of Reclamation of their irrigation water supply for 1977. The suit seeks recovery for losses arising from the irrigation users' alteration of farm operations in reliance upon the Bureau's 1977 water supply forecast.

Plaintiffs in these actions are members of irrigation districts in the Yakima River Valley who receive irrigation water under contracts between the districts and the United States, through the Bureau of Reclamation's Yakima Project. The facilities of the Yakima Project, which include six (6) storage reservoirs and related dams, canals and pumping plants, are used to supply water in monthly allocations to irrigation districts, which then convey the water in their own canals for distribution to member farmers and ranchers. The water is supplied subject to the water rights of the various districts established in a Consent Decree entered on January 31, 1945, in *Kittitas Reclamation District v. Sunnyside Valley Irrigation District* (Eastern District of Washington, Southern Division, Civil Action No. 21) (Appendix Document 1, Ct. Rec. 22).

The Consent Decree established, among other things, the obligation of the United States to distribute irrigation water according to a defined formula in a period of insufficient supply. For purposes of distributing water in a "dry" year, the irrigation districts were classified as either "non-proratables" holding senior water rights or "proratables" holding junior rights. In a year of short supply, the rights of non-proratables were to be fully satisfied from the available supply before the proratables received any water. Two of the larger districts within the Yakima Project, the Kittitas Reclamation District and the Roza Irrigation District, held water rights that were one hundred percent proratable. The Wapato Irrigation Project held rights that were fifty percent proratable and fifty percent non-proratable. Most of the rights of the Sunnyside Valley and Yakima-Tieton Irrigation Districts were non-proratable rights. Of the approximately 13,000 individual water users in the Yakima Project, about one-half were

supplied with non-proratable water and the rest received water subject to proration during periods of shortage. The 159 plaintiffs herein are members of districts having proratable water rights (Ct. Rec. 35, pp. 7-8).

Paragraph 18 of the Consent Decree provided a method for calculating the amount of irrigation water available in any given year, which figure was known as the "total water supply available" (TWSA).

> For purposes of this judgment "total water supply available" is defined as that amount of water available in any year from natural flow of the Yakima River, and its tributaries, from storage in the various Government reservoirs on the Yakima watershed and from other sources, to supply the contract obligations of the United States to deliver water and to supply claimed rights to the use of the water on the Yakima River, and its tributaries, heretofore recognized by the United States.

Thus, there are three components in the calculation of TWSA: water from the natural flow of the Yakima River and its tributaries; from storage in government reservoirs; and from "other sources," which refer primarily to "return flow," *i.e.*, the amount returning to the river system after being diverted for irrigation purposes. Miscalculation of the latter component, return flow, was central in the events leading to this litigation.

Drought conditions in the Yakima River basin in the fall of 1976 and early 1977 caused the Bureau of Reclamation to invoke, for the first time in 32 years, the provisions of the Consent Decree regarding allocation of water between proratable and non-proratable users. In order to do so, the Bureau made a TWSA calculation which was announced on February 7, 1977 (the government has alleged that the Consent Decree did not specify that the Bureau was to make and communicate such calculation, but that Bureau employees determined it was logical and necessary to do so). This first forecast, which Bureau hydrologists allege they couched in a "worst possible scenario" context, projected a total water supply for the 1977 irrigation season of 1,220,000 acre feet. With the non-proratable water rights to be supplied first, proratable water

users were told that they would receive, under the forecast, only seven percent (7%) of their normal water supply (Ct. Rec. 34, p.13).

On March 18, 1977, the Roza Irrigation District filed a motion in United States District Court, Eastern District of Washington, asking the court to reopen the 1945 Consent Decree, enjoin the Bureau from allocating water from the Yakima Project in accordance with the Bureau's interpretation of the Decree, and order a "more just and equitable" distribution of the water. The motion was denied on April 26, 1977 (Ct. Rec. 25, pp. 10-11).

Meanwhile, on April 7, 1977, the Bureau revised its TWSA figure to approximately 1,490,000 acre feet, which had the effect of increasing the proratable supply from about seven percent (7%) to thirteen percent (13%). The ostensible reason for the increased estimate was improved precipitation (Ct. Rec. 25, p.11) but deposition testimony indicated that the increase was effected when the Bureau's Yakima and Boise offices, in a bureaucratic dispute about the proper projected TWSA, "split the difference" between the projections of the two offices (Ct. Rec. 34, pp. 18-19).

In April and May, Bureau hydrologists discovered more water in the Yakima River system than estimated and recalculated the TWSA, for the first time adding return flow as a distinct element. Proratable users were now to receive fifty percent of their normal supply. The Bureau maintains that it previously could not have added return flow separately because of a lack of data about actual diversions being made and reports of water actually returning to the river system after diversion (Ct. Rec. 25, pp. 11-12). Plaintiffs, on the other hand, contend that the Bureau's failure from the outset to isolate return flow from its runoff figures, and to include return flow as a "double entry" was negligent; "the source of the error was not insufficiency of empirical data, but the Bureau's conceptual misunderstanding . . ." (Ct. Rec. 34, p.21). An affidavit by plaintiffs' expert, John A. Dracup, explains that

> . . . return flow is water which originates as natural flow or precipitation which has been diverted once for irrigation, but

> which has returned to the river system for a second or third, etc., subsequent downstream diversion and is thus reused possibly numerous times. Therefore, in an irrigation water supply computation, return flow must be separately added as a "double entry" or in effect as an artificial tributary to the river system.

(Ct. Rec. 33, p.8). Mr. Dracup stated his belief that "the Bureau of Reclamation employees failed to act as reasonable and prudent hydrologists and water managers" in failing to separately add return flow to pre-May 1977 computations and in assuming that runoff measurements included return flow (*Id.*).

In June, a fourth TWSA was issued, this one increasing the estimated supply available to proratable water users to seventy percent (70%); by year's end, according to plaintiffs, the proratable districts got about eighty-three percent (83%) of the water to which they were entitled, adequate to meet one hundred percent (100%) of prior actual historical use (Ct. Rec. 34, p.23). The government says the Bureau delivered 2,070,000 acre feet of water through the Yakima Project for the entire 1977 irrigation season (Ct. Rec. 25, p.12). Of the increase over the intial estimate—850,000 acre feet—the government says 350,000 resulted from return flows and the other 500,000 from favorable precipitation, lower ambient temperatures reducing the demand for water, less-than-usual water diversions, and increased efficiency by the irrigation districts and water users in conveying and applying their water (Ct. Rec. 25, pp. 12-13). However, plaintiffs question the government's figures and contend that precipitation could not account for the "tremendous upward adjustment of the TWSA upon discovery of the return flow omissions" (Ct. Rec. 25, p.8).

Following the 1977 irrigation season, plaintiffs filed administrative claims with the Bureau of Reclamation as required by 28 U.S.C. § 2675(a). After the claims were denied by the Solicitor of the Department of the Interior, these actions were filed. While the original *Schinmann* complaint included allegations that the government had failed to enlarge its water storage facilities "equivalent to [its] contractual commitment to deliver irrigation

water," that claim appears to have been discarded in favor of the claim of a negligently-forecast water supply.

Plaintiffs previously filed a Tucker Act action based upon similar facts in the United States Court of Claims but proceeded to file this action "to preserve plaintiffs' remedies" (Ct. Rec. 1). The Court of Claims action was dismissed on the government's motion for summary judgment, and dismissal was affirmed by the Ninth Circuit Court of Appeals which agreed that the Consent Decree did not expressly obligate the Bureau to inform farmers of available water in a time of shortage. *H. F. Allen Orchards v. United States,* 749 F.2d 1571 (9th Cir. 1984). Most of the materials submitted by plaintiffs in opposition to the present summary judgment motion are discovery from the Court of Claims action.

## SUMMARY OF PARTIES' CONTENTIONS

The government has filed a motion for summary judgment for failure to state a claim upon which relief can be granted and lack of jurisdiction under the Federal Tort Claims Act. Specifically, the government alleges three bases on which it claims summary judgment is appropriate. It says the claim is barred (1) by the misrepresentation exception of 28 U.S.C. § 2680(h); (2) by the discretionary acts exception of 28 U.S.C. § 2680(a); and (3) by the exculpatory clauses of the contracts between the United States and the irrigation districts (Ct. Rec. 24). The government has submitted, in support of its motion, the affidavits of William Gray, former superintendent of the Yakima Project (Ct. Rec. 30), Onni Perala, chief of hydrology at the Yakima Project during the relevant period herein (Ct. Rec. 29) and Daniel Yribar, river operations coordinator at the Bureau's regional office in Boise (Ct. Rec. 28). These affidavits state, in general, that the Bureau operated the Yakima Project in compliance with the Consent Decree and the District Court's April, 1977 Order; that the Bureau's miscalculations were caused by a number of unknown variables and lack of empirical data; and that changes in the TWSA were necessitated by abnormal weather conditions and the difficulties inherent in interpreting, for the first time, the relevant Consent Decree provisions.

Plaintiffs respond, in essence, that neither statutory exception nor the exculpatory clauses apply to shield the government from suit under the present circumstances. They allege that the Bureau's miscalculations—"operational" rather than discretionary tasks—came not from lack of data, an ambiguous Consent Decree or abnormal weather conditions, but from "gross conceptual error" (Ct. Rec. 34, p.15). Plaintiffs claim there was an existing, historically sound rule that the Bureau could have used to project return flow (Ct. Rec. 34, p.20) but instead the government ignored return flow as the primary "other source" of water which was required by the Consent Decree to be separately added in computing TWSA. Plaintiffs further allege that Yakima Project officials were led astray by the regional office in Boise, which tried to apply flood control principles to the problems of estimating irrigation water supply. They also cite depositions of Bureau employees in an attempt to establish that the employees knowingly engaged in "guesstimates," refusing to apply their own scientific evidence (Ct. Rec. 34, pp. 11-23).

Plaintiffs claim the primary disputed material facts include: (1) whether the Bureau hydrologists had sufficient information to make an initial return flow computation; (2) whether the subsequent increases in estimates of water supply were due to the negligence of the Bureau or to unseasonable rains and other unforeseeable variables; (3) whether the Consent Decree's formula was actually unique and difficult to apply; and, (4) whether the Bureau's hydrologists engaged in conceptual error which deviated from a required standard of care (Ct. Rec. 35).

In its Reply Memorandum, the government concedes that upon this motion the court should accept as true plaintiffs' allegations of negligence in the Bureau's calculation of the 1977 irrigation water supply (Ct. Rec. 38, p.5). However, "even if the water supply forecast was negligently calculated, the plaintiffs' claims are still barred by the misrepresentation and discretionary function exceptions to the Federal Tort Claims Act" (the government has placed secondary emphasis on its exculpatory clause defense).

Summary judgment is appropriate where, viewing the evidence and the inferences arising therefrom in favor of the non-movant,

there are no genuine issues of material fact in dispute and the moving party is entitled to judgment as a matter of law. Rule 56(c), Fed.R.Civ.P.; *Cardwell v. Kurtz*, ____ F.2d ____, slip op. 83-5665, p.4 (9th Cir. 1985). In the present case the court must assume, for the purposes of this motion, that the government acted negligently in its calculation of the 1977 water supply forecast. However, it must still be determined whether the misrepresentation and discretionary exceptions of 28 U.S.C. § 2680(h) and (a), respectively, apply entitling the government to judgment as a matter of law.

## THE MISREPRESENTATION EXCEPTION

The United States argues that the misrepresentation exception to federal liability under 28 U.S.C. § 2680(h) immunizes it from liability in this suit. Under the pertinent part of that section:

> The provisions of this chapter and section 1346(b) of this title shall not apply to—
>
> . . .
>
> (h) Any claim arising out of assault, battery, false imprisonment, false arrest, malicious prosecution, abuse of process, libel, slander, misrepresentation, deceit or interference with contract rights; . . .

While plaintiffs claim the negligence of the Bureau was not in the issuance of the inaccurate forecast but in the negligent manner in which it was calculated, "[t]he government submits . . . that the essential ingredient of plaintiffs' claim is the communication of inaccurate information upon which they relied to their economic detriment" (Ct. Rec. 24, p.9). Because the Bureau ultimately delivered as much water as required, "[w]ithout the communication of the information, the plaintiffs would have no claim . . . " (*Id.*).

The government relies upon two key cases in its misrepresentation defense: *United States v. Neustadt,* 366 U.S. 696 (1961) and *Block v. Neal,* 460 U.S. 289 (1983). In *Neustadt,* the high court held that the misrepresentation exception applied to shield the government from liability where home buyers had been furnished

a statement reporting the results of an inaccurate FHA inspection and appraisal, and in reliance thereon paid a purchase price in excess of the property's fair market value. *Neustadt* found that the misrepresentation exception encompassed negligent, as well as wilful, misrepresentations, 366 U.S. at 702, and disagreed with the Fourth Circuit's opinion that the misrepresentation was "merely incidental" to the "gravamen" of the claim, *i.e.*, "the careless making of an excessive appraisal." 366 U.S. at 704.

> To say, as the Fourth Circuit did, that a claim arises out of "negligence" rather than "misrepresentation," when the loss suffered by the injured party is caused by the breach of a "specific duty" owed by the Government to him, *i.e.*, the duty to use due care in obtaining and communicating information on which that party may reasonably be expected to rely in the conduct of his economic affairs, is only to state the traditional and commonly understood definition of the tort of "negligent misrepresentation," as is clearly, if not conclusively, shown by the authorities set forth in the margin [here the court refers to the Restatement of Torts, § 522].

366 U.S. at 706. *Neustadt* observed that misrepresentation, as opposed to other torts, has been confined largely to the invasion of economic interests. 366 U.S. at 711, n.26. The government alleges that "[t]he claims of the farmers and ranchers in these proceedings fit squarely within the concept of negligent misrepresentation" explained in the Restatement and *Neustadt.* (Ct. Rec. 24, p.13).

Plaintiffs in the instant case assert that *Neustadt* has been modified by *Block v. Neal, supra* (Ct. Rec. 34, p.31). This does not appear to be the case. In *Block v. Neal,* respondent had purchased a home built with a subsidized rural housing loan from the Farmers Home Administration (FmHA). The house had a number of defects discovered after respondent moved in, and she had sued the government under the Federal Tort Claims Act for negligent supervision and inspection of the house's construction. The court found that the suit was not barred by the misrepresentation exception because Mrs. Neal's action was based solely on negligent supervision and inspection, not on the statements of FmHA officials. The court distinguished *Neustadt,* observing that

Neustadt had "alleged no injury that he would have suffered independently of his reliance on the erroneous appraisal." 460 U.S. at 296. *Block v. Neal* noted that:

> [S]ection 2680(h) thus relieves the Government of tort liability for pecuniary injuries which are wholly attributable to reliance on the Government's negligent misstatements. As a result, the statutory exception undoubtedly preserves sovereign immunity with respect to a broad range of Government actions. But it does not bar negligence actions which focus not on the Government's failure to use due care in communicating information, but rather on the Government's breach of a different duty.

460 U.S. at 297.

*Block v. Neal* thus indicates that a determining factor in the applicability of the misrepresentation exception is the gravamen of the claim. In the case at bar, the government asserts that the essential element of plaintiffs' claim is "the communication of inaccurate information and without this element the farmers and ranchers would have no claim at all" (Ct. Rec. 24, p.17). The government cites *Guild v. United States,* 685 F.2d 324 (9th Cir. 1982), as an illustration of the difference between the performance of operational tasks and the communication of information. In *Guild,* the government was sued after the failure of a dam for which the Soil Conservation Service had done extensive work, including the surveying of sites, preparation of a topographic survey, recommendation of a site and provision of construction plans and specifications.

> The key distinction in this area is between the performance of operational tasks and the communication of information. The Government is liable for injuries resulting from negligence in performance of operational tasks even though misrepresentations are collaterally involved. It is not liable, however, for injuries resulting from commercial decisions made in reliance on government representations.

685 F.2d at 325 (citations omitted). Plaintiffs cite *Guild* to support their contention that this case may be brought on a theory of "hydrological malpractice" akin to the "species of engineering

malpractice" in *Guild* (Ct. Rec. 33, p.57). As in *Guild*, plaintiffs are arguing that the complained-of conduct is not the communication of information but the performance of operational tasks, here the computation of water supply estimates. However, as the government asserts, in the present case there would have been no loss absent the communications to the farmers; this distinguishes the present case from *Guild*.

Plaintiffs cite a number of cases illustrating their "operational tasks" argument. The opinion which they assert is perhaps "the leading case," *United Airlines v. Wiener*, 335 F.2d 379 (9th Cir. 1964) involved wrongful death actions arising out of the collision between a commercial airliner and an Air Force jet fighter. The court found that the misrepresentation exception did not bar suit against the government for alleged negligence including failure to adequately inform the commercial airliner of the government's hazardous fighter activity, but distinguised its case from *Neustadt*.

> Here, the gravamen of the action is not misrepresentation but the negligent performance of operational tasks, although such negligence consisted partly of a failure of a duty to warn.

335 U.S. at 398.

*Ingham v. Eastern Air Lines, Inc.*, 373 F.2d 227 (2nd Cir. 1967), another case cited by plaintiffs, refused to apply section 2680(h) to immunize the government against charges of negligent failure to provide an airliner with notice of adverse changes in the weather. However, *Ingham*, which, like *Wiener*, dealt with personal injuries and death, distinguished itself from *Neustadt*, which "involved business dealings of a financial or commercial character with the government, a totally different setting from the instant action." 373 F.2d at 239.

Plaintiffs also cite as "another case closely in [sic] point", *Brown v. United States*, 599 F. Supp. 877 (Mass. 1984), an admiralty case involving deaths resulting from reliance on an inaccurate weather forecast which was the consequence of the government's failure to repair a malfunctioning weather data buoy. Plaintiffs' claim, held the court, was not based on the

inaccurate forecasts but on the cause of the inaccuracy: the government's negligent failure to perform the operational task it had assumed of maintaining the weather buoy. Thus the misrepresentation exception did not apply. However, *Brown* noted the language from *Block v. Neal, supra,* to the effect that § 2680(h) relieved the government of liability for *pecuniary* injuries attributable wholly to the misrepresentations of the government. 599 F.Supp. at 890 (emphasis added).

Plaintiffs also refer to *Ausland v. United States,* 488 F.Supp. 426 (S.D. 1980). That case sets out a test to determine whether a claim is covered by the § 2680(h) exclusion for misrepresentation. The test

> . . . is whether [the claim] is for "personal injury or property damages arising from negligent performance of operational tasks . . . [or] injury resulting from commercial decisions taken in reliance on governmental misrepresentations . . . If the latter, a case is barred by § 2680(h).

488 F.Supp. at 431.

The Ninth Circuit has similarly held

> . . . that the misrepresentation exception precludes liability where the plaintiff suffers economic loss as a result of a commercial decision which was based on a misrepresentation by government consisting either of false statements or a failure to provide information which it had a duty to provide.
>
> . . . Where the plaintiffs' injuries were not commercial, as for instance, in the airplane crash cases, and the medical services cases, courts have generally ruled that the exception does not preclude claims based on the government's failure to inform. On the other hand, the exception has usually been held to bar claims for damages resulting from commercial decisions based on false or inadequate information.

*Green v. United States,* 629 F.2d 581 (9th Cir. 1980) (citations omitted).

In the present case, plaintiffs argue that the "government's misrepresentations were not commercial," and that the misrepre-

sentation exception should not apply (Ct. Rec. 34, p.38). However, *Green, supra,* indicates that "the applicability of the exception depends upon the commercial setting within which the economic loss arose." 629 F.2d at 584. It clearly appears that the decisions of farmers and ranchers in the present case—changing crops, selling cattle, investing in wells and additional irrigation equipment—were commercial or economic, within the scope of § 2680(h). Moreover, in ascertaining the gravamen of the present action it appears clear that, absent the communication of misinformation to plaintiffs, no damage would have ensued. Plaintiffs' contention that "[t]he Bureau's communication is collateral" to the improper computation of the water supply is not well taken. The proximate cause of the loss to the farmers appears to have been the misrepresentation or communication of misinformation, not the erroneous calculation of figures.

## THE DISCRETIONARY FUNCTION EXCEPTION

The discretionary function exception of 28 U.S.C. Section 2680(a) states:

> The provisions of this chapter and section 1346(b) of this title shall not apply to—
>
> (a) Any claim based upon an act or omission of an employee of the Government, exercising due care, in the execution of a statute or regulation, whether or not such statute or regulation be valid, or based upon the exercise or performance or the failure to exercise or perform a discretionary function or duty on the part of a federal agency or an employee of the Government, whether or not the discretion involved be abused.

The Government claims that this exception applies to the decision by Reclamation Bureau officials to issue a water supply forecast and to the content and wording of the forecast "for the reason that the Bureau of Reclamation was not obligated, contractually or statutorily, to provide the water users in the Valley with a forecast at all" (Ct. Rec. 24). In fact, although Bureau officials realized it was "logical, reasonable and appropriate" for the Bureau to formulate and issue the 1977 forecast, it was not

obligated under the Consent Decree to do so (Ct. Rec. 24, pp. 23-24); *see* 749 F.2d 1571, *supra.*

Three cases provide primary guidance in determining whether the discretionary function exception should be applied in the present case. They are *Dalehite v. United States,* 346 U.S. 15 (1953), *United States v. S. A. Empressa da Viaco, etc.,* (*Varig Airlines*), 52 U.S.L.W. 4833 (U.S. June 19, 1984), and the very recent case of *Begay v. United States,* ____ F.2d ____, slip op. 84-2462 (9th Cir. Aug. 13, 1985).

*Dalehite,* a case involving explosions of ammonium nitrate fertilizer produced at the instance and under the control and specifications of the United States, described the discretion protected by § 2680(a) as "the discretion of the executive or the administrator to act according to one's best judgment of the best course," 346 U.S. at 34, and stated that the discretionary duty which is excluded from coverage under the Federal Tort Claims Act:

> . . . includes more than the initiation of programs and activities. It also includes determinations made by executives or administrators in establishing plans, specifications or schedules of operations. Where there is room for policy judgment and decision there is discretion. It necessarily follows that acts of subordinates in carrying out the operations of government in accordance with official directions cannot be actionable.

*Id.* at 36. Plaintiffs cite *Dalehite* in an attempt to establish that the intent of Congress in creating the discretionary immunity exception was to immunize the government only where no negligence was present on the part of any government agent (Ct. Rec. 34, p.43). However *Dalehite* noted that the second part of § 2680(a) excepting acts of discretion in the performance of government functions "whether or not the discretion involved be abused"

> . . . connotes both negligence and wrongful acts in the exercise of the discretion because the Act itself covers only "negligent and wrongful act or omission of any employee," "within the scope of his office" "where the United States, if a

> private person, would be liable." 28 U.S.C. § 1346(b). The exercise of discretion could not be abused without negligence or a wrongful act. The Committee reports . . . show this.

346 U.S. at 33.

Plaintiffs also dispute that the government's conduct involved judgment of a political, economic or social policy nature sufficient to invoke the discretionary functions exception (Ct. Rec. 34, p.44; *see Varig Airlines, supra*). However, it appears that the Bureau's decision to issue the forecast was an administrative decision "grounded in social [or] economic . . . policy" for which Congress intended to prevent judicial "second guessing." 52 U.S.L.W. at 4837.

It is also notable that a number of courts have held the discretionary function exception applicable to negligent weather forecasts and predictions of natural disasters. *See National Manufacturing Co. v. United States,* 210 F.2d 263 (8th Cir. 1954) and *Bartie v. United States,* 216 F.Supp. 10 (W.D. La. 1963).

Plaintiffs assert that even if the decisions to compute the water supply and announce it to the farmers were discretionary (which they do not concede), the United States is liable under the "good Samaritan" doctrine of *Indian Towing Co., Inc. v. United States,* 350 U.S. 61 (1955). In *Indian Towing,* plaintiffs alleged that their tugboat ran aground (with resulting damage to its cargo) because the Coast Guard had failed to inspect and repair a lighthouse. The Supreme Court, noting that the question was one of liability for negligence at the "operational level" of governmental activity, 350 U.S. at 64, held that:

> The Coast Guard need not undertake its lighthouse service. But once it exercised its discretion to operate a light . . . and engendered reliance on the guidance afforded by the light, it was obligated to use due care to make certain that the light was kept in good working order; and, if the light did become extinguished, then the Coast Guard was further obligated to use due care to discover this fact and to repair the light to give warning that it was not functioning. If the Coast Guard failed in its duty and damage was thereby caused to petitioners, the United States is liable under the Tort Claims Act.

350 U.S. at 69. Plaintiffs in the present case cite numerous opinions, "progeny of the *Indian Towing* decision," where the government was held liable for the negligent performance of admittedly discretionary decisions (Ct. Rec. 33, pp. 47-48).

The *Varig Airlines* case, *supra*, discussed the "good samaritan" rule in light of § 2680(a). In *Varig* (as, by implication, in the present case) it was alleged that *Dalehite* had been eroded if not overruled by *Indian Towing* and like cases. However, the court observed in *Varig* that *Indian Towing* could be distinguished; there, "the Government *conceded* that the discretionary function exception was not implicated, . . . arguing instead that the Act contained an implied exception from liability for 'uniquely governmental functions.' " 52 U.S.L.W. at 4837. In *Varig,* where it was alleged that the United States was negligent in inspecting certain aircraft modifications, the Supreme Court reversed the Ninth Circuit decision allowing plaintiffs to recover under California's "good samaritan" rule, and held that the discretionary function exception of the Federal Tort Claims Act barred the suit.

*Varig* set out several factors "useful in determining when the acts of a Government employee are protected from liability by § 2680(a)":

> First, it is the nature of the conduct, rather than the status of the actor, that governs whether the discretionary function exception applies in a given case . . . [T]he basic inquiry . . . is whether the challenged acts of a Government employee—whatever his rank—are of the nature and quality that Congress intended to shield from tort liability.
>
> Second, whatever else the discretionary function exception may include, it plainly was intended to encompass the discretionary acts of the Government acting in its role as a regulator of the conduct of private individuals . . . Congress wished to prevent judicial "second-guessing" of legislative and administrative decisions grounded in social, economic, and political policy through the medium of an action in tort. By fashioning an exception for discretionary government functions, including regulatory activities, Congress took

> "steps to protect the Government from liability that would seriously handicap efficient government operations."

52 U.S.L.W. at 4827 (citation omitted).

*Begay, supra,* gave the Ninth Circuit its "first opportunity to apply *Varig* to a case not involving strictly 'regulatory' action of an agency." 84-2462 at p.9. *Begay* involved Navajo Indians who sued the government under the Federal Tort Claims Act for personal injuries arising from alleged excessive exposure to radiation in uranium mines in Arizona. The Indians complained that various governmental agencies were negligent in failing to establish and enforce radiation safety standards, and that a study undertaken by the Public Health Service (PHS) was a "good samaritan" undertaking which had been negligently performed because the miners were not warned of radiation exposure and its hazards.

However, the court, reviewing the *Varig* factors, found that the decision not to disclose the possible dangers of uranium mining to the Indians "was based on [a] judgment of what the best course of action was under the existing circumstances." 82-2462 at p.13. It involved a policy decision—a decision to test for radiation exposure—which was "discretionary by its very nature." *Id.* at 14. Despite the fact that "this is the type of case that cries out of redress, . . . the courts are not able to give it; Congress is the appropriate source in this instance." *Id.* at 15.[2]

In the present case, regardless of alleged negligence on the part of Bureau officials and undisputed losses, it nonetheless appears that the conduct of the Bureau falls within the discretionary functions exception of *Dalehite, Varig* and *Begay,* rather than within the "good samaritan" rule of *Indian Towing.*

---

[2] It should be noted that *Begay,* in a footnote, discarded the planning level/operational level dichotomy traditionally used in analyzing applicability of the discretionary function exception. The court decided that "the proper approach to determining when the exception applies is for the court to look to the nature of the conduct in question." 84-2462 at p.9, n.2.

## THE EXCULPATORY CLAUSES

Because summary judgment appears appropriate under the two statutory exceptions, it is not necessary to construe the exculpatory clauses in the contracts between the United States and the various irrigation districts.

Therefore, having reviewed the record, heard the oral argument of counsel and being fully advised in this matter, IT IS HEREBY ORDERED:

1. The government's Motion for Summary Judgment is GRANTED, for lack of jurisdiction under 29 U.S.C. § 2671, *et seq.*, and failure to state a claim on which relief can be granted, and the complaint and the claims therein in *Schinmann v. United States,* C-82-064-JLQ and *Allen Orchards, et al. v. United States,* C-82-093-JLQ, are DISMISSED WITH PREJUDICE.

IT IS SO ORDERED. The Clerk is directed to enter this Order and forward copies to counsel.

DATED this 18th day of September, 1985.

/s/ JUSTIN L. QUACKENBUSH
Justin L. Quackenbush
United States District Judge

United States District Court
Eastern District of Washington

Case Number: C-82-64-JLQ
C-82-93-JLQ

Elbert B. Schinmann and Teddie Schinmann,
Plaintiffs,

vs.

United States of America,
Defendant.

H. F. Allen Orchards, Inc., et al.,
Plaintiffs,

vs.

United States of America,
Defendant.

Judgment in a Civil Case

[Filed Sept. 18, 1985]

☐ Jury Verdict. This action came before the Court for a trial by jury. The issues have been tried and the jury has rendered its verdict.

☒ Decision by Court. This action came to trial or hearing before the Court. The issues have been tried or heard and a decision has been rendered.

IT IS ORDERED AND ADJUDGED

that the government's motion for summary judgment is granted for lack of jurisdiction under 29 USC 2671, et seq., and failure to state a claim on which relief can be granted, and the complaint and the claims therein in *Schinmann v. United States,* C-82-064-JLQ and *Allen Orchards, et al., v. United States,* C-82-093-JLQ are dismissed with prejudice.

/s/ J. R. FALLQUIST
Clerk

September 18, 1985

**Appendix C**

United States Court of Appeals

For the Ninth Circuit

No. 85-4253
CV-82-064-JLQ

---

Elbert B. Schinmann and Teddie Schinmann,
Plaintiffs-Appellants,

vs.

United States of America,
Defendant-Appellee.

---

H.F. Allen Orchards, et al.,
Plaintiffs-Appellants,

vs.

United States of America,
Defendant-Appellant.

---

Judgment

[May 11, 1987 Mandate Issued, Costs Taxed]
[Filed May 14, 1987, U.S. District Court,
Eastern District of Washington]

APPEAL from the United States District Court for the District of Eastern Washington (Spokane).

THIS CAUSE came on to be heard on the Transcript of the Record from the United States District Court for the District of Eastern Washington (Spokane) and was duly submitted.

ON CONSIDERATION WHEREOF, It is now here ordered and adjudged by this Court, that the judgment of the said District Court in this Cause be, and hereby is Affirmed. Costs is entered in favor of USA in the amount of $90.24.

Filed and entered 02-18-87

NOT FOR PUBLICATION

United States Court of Appeals

For the Ninth Circuit

No. 85-4253
D.C.## CV-82-064-JLQ

---

Elbert B. Schinmann and Teddie Schinmann
Plaintiffs-Appellants,

vs.

United States of America,
Defendant-Appellee.

---

H.F. Allen Orchards, et al.,
Plaintiffs-Appellants,

vs.

United States of America,
Defendant-Appellee.

---

Order Denying Petition for Rehearing

[Filed May 1, 1987]

Before: Tang, Pregerson and Alarcon, Circuit Judges.

The panel as constituted above has voted to deny the petition for rehearing and to reject the suggestion for rehearing en banc.

The full court has been advised of the suggestion for rehearing en banc, and no judge of the court has requested a vote on the suggestion for rehearing en banc. Fed. R. App. P. 35(b).

The petition for rehearing is denied and the suggestion for rehearing en banc is rejected.

**Appendix D**

Burton J. Goldstein
Goldstein, Barceloux & Goldstein
The Hartford Building, 33rd Floor
650 California Street
San Francisco, CA 94108
Telephone No. (415) 433-3000

Bryan G. Evenson
Halverson & Applegate, P.S.
311 North Fourth Street
P.O. Box 526
Yakima, Washington 98907-0526
Telephone No. (509) 575-6611
Attorneys for Plaintiffs

United States District Court
Eastern District of Washington

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No. C 82-064-JLQ

---

Elbert B. Schinmann and Teddie Schinmann
Plaintiffs,

vs.

United States of America,
Defendant.

---

No. C 82-093-JLQ

H.F. Allen Orchards, et al.,
Plaintiffs,

vs.

United States of America,
Defendant.

---

Joint Notice of Appeal

[Filed Oct. 15, 1985]

Notice is hereby given that Elbert B. Schinmann and Teddie Schinmann and H.F. Allen Orchards, et. al.,* plaintiffs named above, hereby appeal to the United States Court of Appeals for the Ninth Circuit from the final judgment in these cases entered in these actions on September 18, 1985, which judgment granted defendant's motion for summary judgment and dismissed both of the above-captioned actions with prejudice.

Dated: October 8, 1985

Goldstein, Barceloux & Goldstein

By /s/ BURTON J. GOLDSTEIN
Burton J. Goldstein

Dated: Oct. 14, 1985

Halverson & Applegate, P.S.

By /s/ BRYAN G. EVENSON
Bryan G. Evenson

---

* A complete list of the plaintiffs in the H.F. Allen Orchards action is set out in Exhibit "A" attached hereto.

## EXHIBIT A

H. F. ALLEN ORCHARDS, BRUCE D. ALLEN, JEAN D. ALLEN; LEW JUDD ALLSOP, KATHRYN ALLSOP; CARL ALLWARDT, MONA ALLWARDT, SALLY HITCHCOCK, SUSAN VENNERLY; B 3 ENTERPRISES, INC.; B 3 INC/WILLARD FARMS, MAX BENITZ, LEON WILLARD; DENNIS N. BALCH, MARJORIE BALCH; W. E. BALCH, JR., BILLIE BALCH; CLAUDE C. BARTSMA, SHIRLEY BARTSMA; COURTNEY R. BAZE, GWENDOLYN BAZE; OTTO BECKER, KAY BECKER; BENTON CITY MINT FARMS, INC.; BLAZING TREE RANCHES; RICHARD WILLARD; DELMAR BOUCHEY, and STEVEN BOUCHEY, a partnership, DELMAR E. BOUCHEY, LEONA BOUCHEY, STEVEN BOUCHEY, CLAUDIA BOUCHEY; ARNOLD O. BRULOTTE, ALICE P. BRULOTTE; BENNETT G. BRULOTTE, TRACY BRULOTTE; BRULOTTE FARMS, a partnership, ROSALIE M. BRULOTTE (individually and as personal representative of Roland E. Brulotte, deceased), RONALD L. BRULOTTE, RICHARD D. BRULOTTE; BURKHOLDER FARMS, INC.; CAMERON BROS. RANCH, VIRGIL F. CAMERON, KATHY CAMERON, SAM B. CAMERON; SEBASTIAN CHARRON, EDITH CHARRON, CHARRON COMPANY, INC.; JOSEPH J. CHOTT, JEAN CHOTT; FRED CHRISTEN, D.D.S and NEIL BISYAK, a partnership, FRED CHRISTEN, NEIL BISYAK; DONALD A. CLARK, KATHLEEN CLARK; THAD COLEMAN, OLIVE COLEMAN; COLLINS FARMS, THEODORE L. COLLINS, LEONARD E. COLLINS, HELEN COLLINS; GENE V. CONNER, ANNA CONNER; EARL W. CRAWFORD & SONS, INC.; CRAWFORD FARMS, BENTON CRAWFORD, EDWARD CRAWFORD, EVELYN CRAWFORD, JANET CRAWFORD; BLAINE CREA, JUDY CREA; WILLIAM H. CURRIER, DELLA MAE CURRIER; DELMAR S. DAY, JOYCE DAY; WESLEY J. DenBESTE, CLETA DenBESTE; CLIFFORD T. DILLS, BARBARA A. DILLS; DRAKE LAND & CATTLE CO., ROBERT J. DRAKE, KATHRYN O. DRAKE, ROBERT J. DRAKE, JR.; FRANK B. DREYER, MARGARET DREYER; CONRAD DuFAULT, MARGARET M. DuFAULT; JEWEL W. DUGGINS PAT M. DUGGINS; GARRET W. DUIM, MARIE E. DUIM; DURFEY FARMS, JAMES DURFEY, LOUISE DURFEY, TED DURFEY, JAMES DURFEY, JR., JUDY DURFEY; T. MARVIN EBERLE, SHIRLEY EBERLE; ELIZABETH FARMS, INC.; MAX W. EUTENEIER, BONNIE EUTENEIER; RONALD W. EVERTS, LINDA L. EVERTS; FARWESTERN FARMS, INC.; DONALD

FAUCHER, MABLE FAUCHER; FORREST JOHNSON ORCHARDS INC.; MARVIN F. FOSTER, BARBRA FOSTER; NICHOLAS J. FRIEND, NORMA JEAN FRIEND; LEO GASSELING & SONS, INC.; HARRY B. GAY, JR., MARIAN L. GAY; GORDON A. GEFFE, KAY E. GEFFE; BEN F. GEORGE, NINA GEORGE; GOLDCREST ORCHARDS, INC.; GOLOB & SONS, INC.; QUENTIN G. GOODWIN, JOCELYN L. GOODWIN; GREEN ACRE FARMS INC.; MARK GROSZHANS, DOROTHY GROSZHANS; HATA ORCHARDS, YOSHIO HATA, GILBERT DEAN HATA, GLENN F. HATA, CARMEN M. HATA; HATTRUP FARMS, INC.; WARREN E. HAZEN; E. T. HEARRON COMPANY, INC. CARP-LAND CO., a partnership, THOMAS CARPENTER, JR., individually, CARPENTER IMPROVEMENT DISTRICT, THOMAS CARPENTER, JR., THOMAS CARPENTER, BETTY JO CARPENTER, VIOLET I. CARPENTER; PORTER J. HENSLEY, CHARLOTTE E. HENSLEY; JOE W. HOBBS, NEDRA M. HOBBS; LINDEN J. HOPE, BARBARA C. HOPE; HOUGHTON FARMS, ROBERT W. CATTERALL, LOIS H. CATTERALL; KEN INABA, SHIZ INABA; EVERETT IRISH, MARGARET IRISH; MASATERU JIO, GRACE JIO; ELIZABETH C. JOHNSON, individually and as Executrix of the Estate of Lawrence W. Johnson, Deceased; VIVIAN T. JOHNSON; KENDALL FARMS, INC.; ALAN R. KLEBAUM, EILEEN F. KLEBAUM; HARVEY KRUEGER, RUTH F. KRUEGER; MASUO KURIBAYASHI, SUE KURIBAYASHI; ROBERT H. LEACH, PHYLLIS LEACH; TILMAN J. LEISKE, ERMA E. LEISKE, RODNEY J. LEISKE, MARILYN LEISKE, LEISKE & SON ORCHARDS, a partnership, LEISKE & SON ORCHARDS, INC.; HENRY R. LENZ, MADELINE D. LENZ; WALTER O. LEONARD, DALL W. LEONARD; LEVEL BEST, INC.; DONALD W. LEWIS, NANCY LEWIS; KENNETH E. LEWIS, ELIZABETH E. LEWIS; LOMBARD LOOP RANCHES, DOUBLE M RANCH, FRED H. MAHRE, HELEN L. MAHRE; RICHARD L. MARQUARD, NORMA A. MARQUARD; ARNOLD LEE MARTIN, MARCIA L. MARTIN; ROBERT J. MARTIN, EILEEN M. MARTIN; STANLEY McCUNE, ELIZABETH H. McCUNE; FRANK R. MEYER; MILLER RANCHES, JAMES C. MILLER, KATHLEEN MILLER; MONARCH RANCH, THOMAS SELLERS, EVADEEN SELLERS, FRANK DUNHAM; JOANNE MARE NASHEM, GLENNA MAE ENGQUIST; RATTLESNAKE RANCH, NORTHWEST BUILDING CORP., NEWPORT, INC., JONES BUILDING CO., MEDINA LAND CO.; G. JAY NELSON,

JOAN ELIZABETH NELSON; NICKOLOFF ORCHARDS, INC.; EARL NIESZ, FRED NIESZ, VIVIAN NIESZ, ANN NIESZ; YASUO NISHI, SAM NISHI, RUTH NISHI; OASIS FARMS, INC.; THERESA OLDFIELD, GEORGE M. OLDFIELD; FRANK G. ONSTOT, CAROLINE ONSTOT; PACIFIC COAST NURSERY, INC.; PATNODE HOPS, INC; JUDITH PIERCE (aka Judith Finkbeiner), NEIL PIERCE; PLEASANT ACRES, INC.; DONALD E. PORTER, PAUL PORTER, BETSY PORTER, ROBIN PORTER; BILL G. PRATER, VIDA PRATER; MARTIN R. PUTERBAUGH, FRANCES J. PUTERBAUGH; RALPH E. RANDALL; ROBERT A. RASMUSSEN, LUCILLE H. RASMUSSEN; R. E. REDMAN & SONS, INC.; ROSKAMP FARMING CO., INC.; C. WILLIAM ROSS, HELEN MARIE ROSS; STANLEY A. ROY, SUSAN ROY; S. P. FARMS, INC.; PAUL R. SABIN, HELEN GENE SABIN; STEVE SAUVE, NANCY SAUVE; HAROLD SCHROTENBOER, THELMA S. SCHROTENBOER; ROBERT D. SCHNEBLY, LINDA SCHNEBLY; BERNIE E. SCHUTT, DiANN D. SCHUTT; FRED A. SCHUTT, HAZEL J. SCHUTT; JOHN SCHWAB, MYRNA SCHWAB; PETER SCYMANSKI, JR., DONNA SCYMANSKI; JOHN B. SEGAL, JANET Z. SEGAL; JOHN W. SELL, MARTHA M. SELL; NICHOLAS J. SEYMOUR, CHARLENE SEYMOUR; WILLIAM V. SHELTON; SHERANDRE FARMS, LTD.; WILLIAM R. SMITH, BESSIE R. SMITH; SPAR FARM, ARTHUR L. PITTILLO; NORVAL W. SPARKS, BARBARA SPARKS; ROGER C. SPARKS, RITZ SPARKS; STEPPING P, INC.; REESE O. STOUT, HELEN STOUT; DAVID STRICKLAND, IONA STRICKLAND; GERALD F. SYBOUTS, MICKIE S. SYBOUTS; JOHN E. SYVERSON, TERRI L. SYVERSON; HEROLD TOOP, GLORIA TOOP; MERTON J. TOOP, EMMI TOOP; DAN C. TRABANT, BARBARA M. TRABANT; TRIPLE R RANCHES, INC., GERALD TRUPP, ROSALEE TRUPP; TUDOR HILLS VINEYARDS, INC.; UCHIDA BROS., INC.; UMEMOTO FARMS, INC.; RODNEY N. VAN ALLEN, TONI VAN ALLEN; CLIFFORD R. VanBELLE, ESTHER VanBELLE; DALE VanBELLE, DEBBIE VanBELLE; VAN KLINKEN BROS., INC.; VISSER FARMS, INC., WILLIAM J. VISSER, JENNIE V. VISSER; W. S. FARMS, INC.; WALTER A. WAGNER, MARGERY WAGNER; RAY V. WALKER, MARY L. WALKER; HUBERT W. WATSON, MARY ELLEN WATSON; PAUL J. WEAVER, FLORENCE ANN WEAVER; MARTIN G. WEEKES, JOYCE E. WEEKES; LARRY M. WHEELER, PHYLLIS WHEELER; MAX L. WICKHAM, BARBRA WICKHAM;

WILLARD FARMS, LTD., LEON WILLARD; ROBERT S. WILLIAMS, ROBERT T. WILLIAMS, VIVIAN WILLIAMS, EARL CRAWFORD & SONS INC., a partnership; WOODWORTH BROS., L & S WOODWORTH, INC., d/b/a WOODWORTH BROS.; and Y & Y FARMS, INC.,

*Plaintiffs,*

## Appendix E

United States Department of the Interior

(Letterhead)

Bureau of Reclamation
Pacific Northwest Region
Federal Building & U.S. Courthouse
Box 043-550 West Fort Street
Boise, Idaho 83724

In reply refer to: 700

Memorandum

To: Commissioner
From: Regional Director, Boise, Idaho
Subject: Yakima Project Water Supply Projections

Enclosed is our report on the review of the water supply projections for the Yakima Project. As a result of the review, we are implementing the following actions to improve our forecasting procedure for the Yakima Project:

1. Procedures for computing the total water supply available in the Yakima River basin and for distributing this supply to water rights recognized in the 1945 Consent Decree will be defined in operating instructions for the project. A process will be developed to resolve any differences in forecasts and computed water supplies which occur between Yakima Project Office and Regional Office hydrologists prior to publication of the data.

2. Review of forecasting procedures in the Yakima River basin with the National Weather Service, the Soil Conservation Service and the Washington State Department of Ecology.

3. The effort to develop a computer model for use in operating the Yakima Project, now underway as a study in the Yakima Valley Water Management Study, will be expedited.

4. Consideration will be given to providing to water users variable TWSA estimates which project both "conservative" and "normal" forecasts.

We have just reviewed the current water supply situation of the Yakima Project using the most recent runoff and water use data available. The current estimate of total water supply for the period of July through October is 1,260,000 acre-feet. This estimate assumes that (1) natural runoff will be equal to the smallest July, August, September, and October of record; (2) return flows will amount to about 50,000 acre-feet per month, flows realized in July through October, 1963, the minimum which occured for the period of 1960-75; (3) an estimated storage content on July 1 of 900,000 acre-feet, and (4) estimated spills past Parker of 20,000 acre-feet.

The current estimate represents an increase in supply from previous estimates. Some of the increase is attributed to additional natural flows over that previously forecasted and some to the fact that the diversions by the water users during the preceding months have been less than their decreed rights. It appears that the 1,260,000 acre-feet estimate will be adequate to fully meet average historical July through October diversions.

Converting our most recent forecast to compare with our mid-May estimate of April through October proratable water supply of about 50 percent results now in a 70 percent April through October proratable water supply.

ROD VISSIA

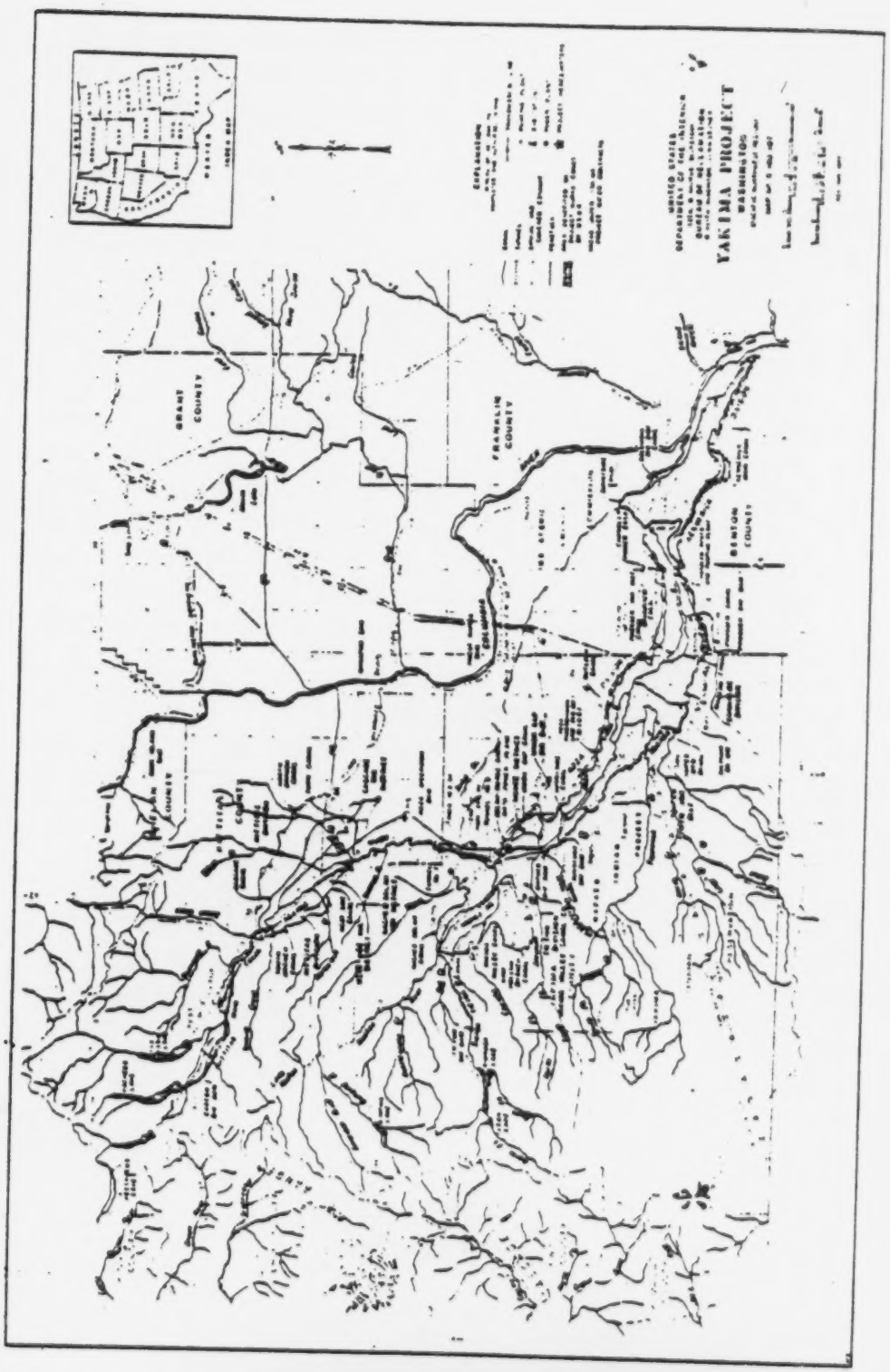
ENCLOSURE (2)

CC: PROJECT SUPERINTENDENT, YAKIMA WASHINGTON
W/ENCLOSURES (2)

# Review of 1977
# Water Supply Estimates
# Yakima River Basin

## YAKIMA PROJECT, WASHINGTON

U.S. Bureau of Reclamation
Pacific Northwest Region
June 1977

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## INTRODUCTION

Extremely dry conditions occurred in the Yakima River basin from October 1976 through January 1977. The outlook was for the drought condition to continue during the remaining months preceding the 1977 irrigation season when precipitation normally occurs. Because of this, water users in the Yakima River basin, local and State agencies, and Federal agencies such as the Bureau of Reclamation became concerned about the availability of an adequate irrigation water supply to maintain agricultural production in the basin.

In February 1977, the Bureau of Reclamation provided an estimate of the total water supply available (TWSA). The February estimate of TWSA for the period April 1 through September 30, 1977, was 1,220,000 acre-feet. This volume is about 50 percent of the water required to satisfy all entitlements under the 1945 Consent Decree which is used to allocate supply among parties recognized in the decree. Allocation of the 1,220,000 acre-feet pursuant to the decree resulted in a projection that holders of proratable, or junior, water rights would witness severe shortages. The Kittitas Reclamation District and Roza Irrigation District, whose entire water supplies are proratable, would receive about 7 percent of their water entitlement.

The extreme deficiency in the Western United States water supply, including the Yakima River basin, resulted in the enactment of the Emergency Drought Act of April 7, 1977, an act to provide financial as well as technical assistance to relieve the impacts of the drought.

In April, Reclamation revised its TWSA estimate from 1,220,000 acre-feet to 1,390,000 acre-feet to reflect the favorable precipitation conditions that occurred in March. This resulted in a slightly improved water supply outlook for the basin and gave the proratable rights a 13 percent supply.

In May, there was evidence that irrigation diversions were being met with less demand on natural flow and storage than had been anticipated. This necessitated a review of the initial February TWSA estimate. As defined in the 1945 Consent Decree, the major components included in the computation of TWSA are:

(1) forecasted natural runoff, (2) available reservoir storage, and (3) other sources including diverted water which returns to streams for reuse—return flows. The review showed that the return flow component had not been adequately accounted for, and that this resulted in underestimating the available water supply by about 350,000 acre-feet. Addition of the 350,000 acre-feet to the April estimate resulted in a revised May TWSA of 1,740,000 acre-feet for a comparable April through September period. This change impacted primarily upon the Kittitas Reclamation District and the Roza Irrigation District because the decree's priority water rights had been satisfied and all newly projected water accrued to districts holding junior water rights. The result was an estimated water supply to these districts of about 50 percent of their entitlement, rather than the February estimate of 7 percent.

The purpose of this report is to discuss the procedure used in estimating the TWSA, to summarize a chronology of events from October to May, and to identify reasons for the change in the TWSA estimate.

## SETTING

The Yakima River basin, located in south-central Washington, covers an area of about 6,000 square miles or about 4,000,000 acres. The basin centers around the city of Yakima and includes most of Yakima, Kittitas, and Benton Counties. Topography is characterized by a series of long, rather hilly ridges extending eastward from the Cascades and encircling flat valley areas. Elevations in the basin range from over 12,000 feet in the Cascades to about 350 feet at the confluence of the Yakima and Columbia Rivers.

The Yakima River and its tributaries drain the area. The Yakima River heads near the crest of the Cascade Range, above Keechelus Lake at elevation 2,517 and flows for 175 miles generally south-eastward to its confluence with the Columbia River near Richland. Major tributaries include the Kachess, Cle Elum, and Teanaway Rivers in the north and the Naches River, which has two major tributaries—Bumping and Tieton Rivers.

Ahtanum, Toppenish, and Satus Creeks join the river in the lower portion of the basin. Natural runoff for the basin above Parker averaged about 3.5 million acre-feet annually over the period 1940-1976. Natural runoff usually peaks in May and June and drops to its lowest point in August.

About 500,000 acres are now irrigated in the basin, of which approximately 460,000 acres receive service from federally constructed facilities. The major irrigation areas and their facilities are shown in table 1.

In 1975, the total gross crop value of crops produced on irrigated land on the Yakima Project was $233 million; an average of $586 per irrigated acre. Table 2 shows that of the 388,952 acres irrigated in 1975, perennial crops (hops, mint, asparagus, nursery stock, seeds, and fruits) accounted for 131,200 acres (34 percent). Perennial crops, if lost, can take from 2 to 8 years to reestablish, depending on whether they are special seed crops or fruits.

## Table 1.—Yakima Project and Associated Areas

| Division or Area | General Location | Irrigable Area (acres) | Major Irrigation Facilities | Source of Water(1) | Operating Organization |
|---|---|---|---|---|---|
| Kittitas | Kittitas Valley near Ellensburg | 57,000 | Easton Diversion Dam, Main Canal, North and South Branch Canals | Keechelus and Kachess Reservoirs | Kittitas Reclamation District |
| Tieton | Upper Yakima Valley | 27,000 | Tieton Diversion Dam Tieton Canal | Tieton Reservoir | Yakima-Tieton Irrigation District |
| Sunnyside | Lower Yakima Valley | 104,000 | Sunnyside Diversion Dam, Sunnyside Canal, pumping plants | All project reservoirs | Sunnyside Valley Irrigation District and others |
| Roza | Lower Valley north of Sunnyside Division | 72,500 | Roza Diversion Dam, Ridge Canal, and pumping plants | Keechelus, Cle Elum, Kachess Reservoirs | Roza Irrigation District |
| Kennewick | Extreme Lower Yakima Valley, Benton County | 19,200 | Prosser Diversion Dam, Chandler Canal, pumping plants, Kennewick Main Canal | (Some storage, but largely return flow) | Kennewick Irrigation District |
| Storage | | | Reservoirs: Keechelus, Kachess, Cle Elum, Tieton Bumping, Clear Creek | Regulates storage and distributes natural flow | Bureau of Reclamation |
| Wapato Project (Indian) | Lower Yakima Valley south of river | 136,000(3) | Main and Pump Canals, and drainage works | All Yakima Project reservoirs | Bureau of Indian Affairs |
| Miscellaneous Areas(2) | Scattered | 45,800 | Numerous diversions, canals, and drainage works | Natural flow and storage water from reservoirs | Various irrigation districts, companies, and individuals |

(1) Water supply for all areas comes from natural flow, storage, and return flow.

(2) Special and Warren Act Contractors.

(3) Acreage in the Ahtanum and Toppenish-Simcoe Units of the Wapato Project not dependent upon Yakima Project for water.

The water supply for the Yakima Project comes from natural flow, storage, and return flows. The six Federal reservoirs in the basin which help regulate this supply have a total storage capacity of 1,070,000 acre-feet—Bumping Lake (33,700 acre-feet), Keechelus Lake (157,800 acre-feet), Kachess Lake (239,000 acre-feet), Cle Elum Lake (436,900 acre-feet), Rimrock Lake (198,000 acre-feet), and Clear Lake (5,300 acre-feet). Other principal features include several diversion dams, two hydroelectric generating plants, canals, laterals, and pumping plants.

The Yakima Project is primarily an irrigation project with hydroelectric power generation an associated function. Project reservoirs do provide incidental flood control and recreation benefits, and project operation does provide some flows for fish.

Table 2.—Selected 1975 Crop Value Data, Yakima Project, Washington

| Total Acreage | Crop | KENNEWICK ID | | KITTITAS RD | | ROZA ID | |
|---|---|---|---|---|---|---|---|
| | | Acres | Crop Value | Acres | Crop Value | Acres | Crop Value |
| 61,686 | Grain | 1,893 | 453 | 4,872 | 1,314 | 11,735 | 3,091 |
| 152,428 | Forage | 6,729 | 1,548 | 47,007 | 4,701 | 10,382 | 2,399 |
| 19,260 | Field Crops | 1,032 | 499 | 60 | 25 | 5,930 | 5,107 |
| * 20,922 | Hops | — | — | — | — | 3,995 | 5,907 |
| * 16,155 | Mint | — | — | — | — | 5,523 | 3,253 |
| 23,378 | Vegetables | 23 | 38 | 2,512 | 1,291 | 3,415 | 2,951 |
| * 12,260 | Asparagus | 151 | 114 | — | — | 2,604 | 2,259 |
| * 886 | Nursery | 29 | 52 | — | — | 458 | 824 |
| * 1,718 | Seeds | 70 | 15 | 86 | 36 | 1,175 | 400 |
| * 80,259 | Fruit | 1,884 | 2,741 | 44 | 8 | 20,167 | 30,588 |
| 389,952 | Totals | 11,811 | 5,460 | 54,581 | 7,375 | 65,384 | 56,779 |

* Denotes perennial crop figures

Table 2.—Selected 1975 Crop Value Data, Yakima Project, Washington (Continued)

| Total Acreage | Crop | SUNNYSIDE DIV. Acres | SUNNYSIDE DIV. Crop Value | YAX-TIE ID Acres | YAX-TIE ID Crop Value | WAPATO IP Acres | WAPATO IP Crop Value | OTHERS Acres | OTHERS Crop Value |
|---|---|---|---|---|---|---|---|---|---|
| 61,686 | Grain | 5,213 | 1,282 | 0 | 0 | 33,294 | 9,804 | 4,679 | 1,243 |
| 152,428 | Forage | 30,892 | 4,948 | 2,347 | 221 | 33,897 | 6,386 | 21,174 | 2,524 |
| 19,260 | Field Crops | 1,516 | 716 | 0 | 0 | 10,114 | 4,191 | 608 | 296 |
| *20,922 | Hops | 5,697 | 8,258 | 25 | 32 | 7,686 | 10,520 | 3,519 | 5,326 |
| *16,155 | Mint | 1,031 | 494 | 0 | 0 | 9,277 | 6,376 | 324 | 205 |
| 23,378 | Vegetables | 1,222 | 609 | — | — | 13,910 | 6,919 | 2,296 | 1,205 |
| *12,260 | Asparagus | 5,330 | 3,838 | — | — | 3,371 | 3,002 | 804 | 678 |
| *886 | Nursery | 70 | 68 | — | — | 309 | 556 | 20 | 37 |
| *1,718 | Seeds | 110 | 49 | — | — | 190 | 35 | 87 | 19 |
| *80,259 | Fruit | 11,163 | 11,786 | 17,277 | 22,163 | 11,029 | 16,640 | 18,695 | 27,113 |
| 389,952 | Totals | 62,244 | 32,048 | 19,649 | 22,416 | 123,077 | 64,429 | 52,205 | 188,507 |

* Denotes perennial crop figures.

## YAKIMA PROJECT OPERATION

The six project reservoirs are the key to the regulation and utilization of the Yakima basin water supply. Operation of these reservoirs provides the control necessary to meet the basin's irrigation needs by the storage of winter and spring runoffs for subsequent use during the months of July, August, and September when natural runoff is low and irrigation demands are high. The carryover of water supplies in storage from one irrigation season to the next is an essential ingredient in assuring a continued supply in water deficient years.

Yakima Project operation depends upon the magnitude of the TWSA.

Irrigation districts begin to prime and test their systems as early as March 20. The irrigation of crops normally commences April 1, and terminates about October 15.

At the close of the irrigation season, reservoir releases are stopped to provide opportunity for structural inspection and maintenance.

Winter storage releases are dependent on the amount of carryover storage and fall precipitation. Rain-on-snow floods can occur during this period. Following a flood, reservoirs are lowered to levels that, based on studies of past record, will provide space for future flood flows and yet assure that reservoirs can be filled for irrigation if precipitation ceases to occur.

Fishery flows are provided in normal water supply years below Prosser Diversion Dam. During the period July 11 through August 31 and December 1 through February 28, this flow is 50 cubic feet per second,. The flow is increased to 200 cubic feet per second during the period March 1 though July 10 and September 1 through November 30. Also, in September, flows are made available at Easton Dam for fish propagation.

Key data points for water control in the basin are gaging stations on the Yakima River near Umtanum and Parker and on the Naches River near Naches. Inflow to reservoirs and discharge at these points is monitored to assure that proper operation for irrigation, flood control, and other functions is being achieved.

## 1945 CONSENT DECREE

Rights to divert waters of the Yakima system for irrigation were allocated by the United States District Court at Yakima January 31, 1945, in Civil Action No. 21, commonly referred to as the 1945 Consent Decree.

Parties to the decree are:

1. Sunnyside Division including:
   - Sunnyside Valley Irrigation District
   - Prosser Irrigation District
   - Snipes Mountain Irrigation District
   - Grandview Irrigation District
   - Zillah Irrigation District
   - Granger Irrigation District
   - Outlook Irrigation District
   - Sunnyside Irrigation District
2. Tieton Division
3. Kittitas Division
4. Roza Division
5. Selah & Moxee Irrigation District
6. West Side Irrigating Company
7. Union Gap Irrigation District
8. Broadway Irrigation District
9. Cascade Irrigation District
10. Terrace Heights Irrigation District
11. Moxee Ditch Company—Sub A
12. Naches-Selah Irrigation District
13. Yakima Valley Canal Company

The Wapato Indian Project is not a party nor signatory to the decree, but its rights are recognized and defined. The parties to the decree and the Wapato Indian Project represent 85-90 percent of the water used in the basin. There are about 40 other districts or water using entities which are not party to the decree but belong to a group defined in Article 19 of the decree as "users of natural flow rights from the Yakima River and its tributaries, which have heretofore been recognized by the United States whether or not such users are parties to this action . . ."

The decree sets out the rights and responsibilities of the United States acting through the Bureau of Reclamation which are (1) the United States can divert flood waters, (2) the United States is responsible for making certain prescribed amounts of water available at the points of diversion (head gates) of irrigation districts, and (3) the United States is responsible for determining amount and assuring availability of water necessary for fish passage over Sunnyside Dam during periods of flood water diversions in item 1.

The decree states that waters of the basin shall be meted out from the "total water supply available" (TWSA) which is defined as "that amount of water available in any year from natural flow of the Yakima River, and its tributaries, from storage in the various Government reservoirs of the Yakima watershed and from other sources, to supply the contract obligations of the United States to deliver water and to supply claimed rights to the use of water on the Yakima River, and its tributaries, heretofore recognized by the United States." The rights of the parties are classified as nonproratable and proratable. Nonproratable rights are held by those water users with the earliest developed lands, and these rights are to be served first from the total water supply in the basin. the nonproratable rights and related water quantities are identified in Article 19 of the decree as follows:

1. 720 cfs for the Wapato Indian Project which was provided for by the Act of August 1, 1914 (38 Stat. 604).

2. 250 cfs for the Tieton Division for the months of May, June, July, August, and September.

3. 700 cfs April 1 through October 20 for lands within the Sunnyside Valley Irrigation District.

4. 35 cfs of water for Kennewock (sic) lands served from the Sunnyside Canal.

5. 26 cfs for use on Peity Flat lands served from the Sunnyside Canal.

6. 25 cfs in accordance with a contract dated September 24, 1910, between the United States and the Prosser Falls Land & Power Company, said water delivered from Sunnyside Canal.

7. 5 cfs for the Town of Prosser, also served from the Sunnyside Canal.

8. 150 cfs for the Cascade Irrigation District from March 15 to July 20, and 16,800 acre-feet of water from July 20 to October 15 provided by a contract of December 12, 1906, and 30 cfs of stock water from October 15 to March 15.

9. Amounts claimed by other water users or natural flow rights from Yakima River and its tributaries which have heretofore been recognized by the United States whether or not such users are parties to this action, and the summation of said amounts shall also be deducted from the total water supply available subject to proration.

With the nonproratable water uses identified and quantified, the decree implies that all other waters available are proratable and that all proratable waters are of equal priority.

The basis in proratable water right totals about 1,284,000 acre-feet. About 83 percent of the proratable water is held by the Roza Irrigation District, the Kittitas Reclamation District, and the Wapato Indian Project. A distribution of the proratable water is:

| Area | | Proratable Right |
|---|---|---|
| | | acre-feet |
| Kittitas Reclamation District .. | 336,000 | (100 percent of supply) |
| Roza Irrigation District ..... | 375,000 | (100 percent of supply) |
| Wapato Indian Project ..... | 350,000 | (53 percent of supply) |
| Sunnyside Division ..... | 142,684 | (31 percent of supply) |
| Yakima-Tieton Irrigation District ..... | 38,181 | (33 percent of supply) |
| Other small holdings ..... | 42,295 | (5-10 percent of supply) |
| Total ..... | 1,284,160 | |

Because all of the rights held by the Kittitas and Roza districts are proratable, these two districts are especially affected in years of short water supply.

The Kittitas Reclamation District and the Roza Irrigation District recently submitted a motion to the U.S. District Court to reopen and interpret the 1945 Consent Decree. The Court, on April 26, 1977, rendered its opinion that while it had no authority to reopen the decree, it did by the terms of the decree, have jurisdiction to interpret and administer it. The Court ordered and agreed that (1) the motion of the defendants to reopen the 1945 Consent Decree was denied, (2) the interpretation of the decree by the Bureau of Reclamation as to priority and scheduling of water delivery is reasonable and correct, and (3) the order was without prejudice to the rights of the parties to seek further interpretation or administration of the provisions of the decree. Subsequently, the Yakima Project Superintendent was appointed to act as watermaster under the decree.

The hydroelectric plants in the system do not have storage water rights; the plants operate on flows subordinate to irrigation rights.

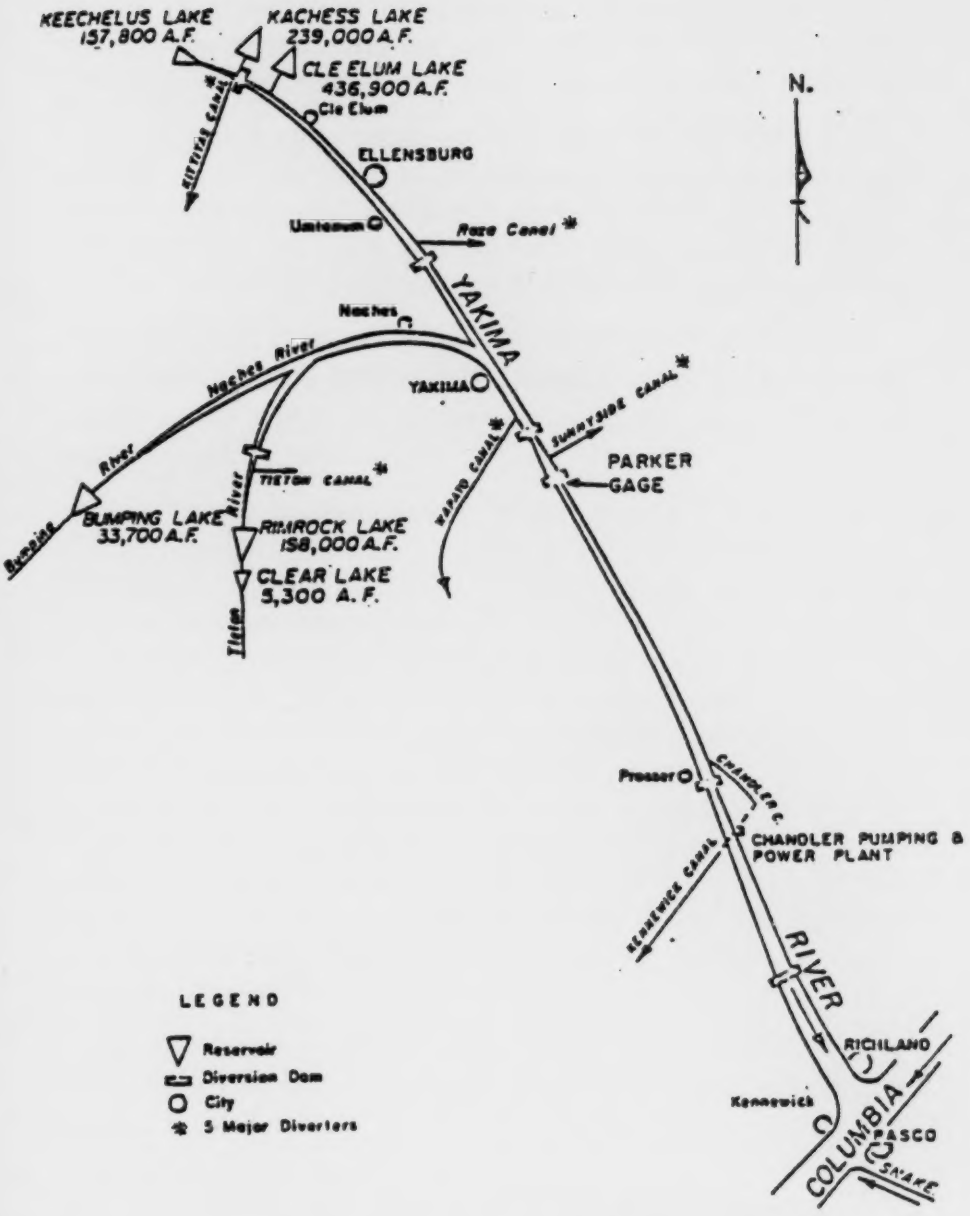
## COMPUTATION OF TOTAL WATER SUPPLY AVAILABLE

The Consent Decree provides a means of distributing water among the parties thereto in years of deficient supplies. Since the effective date of the decree, the water users in the Yakima River basin have enjoyed, in most instances, years of adequate supplies.

This, combined with the fact that actual diversions have historically totaled less than entitlements, has made a strict allocation of the water supply under the decree unnecessary.

This section of the report consists of two parts: Part I describes the correct procedure that should be used for computing the TWSA if the provisions of the Consent Decree are to be applied for distributing deficient water supplies, and Part II describes the procedure which was followed in computing TWSA for 1977.

The Yakima River basin schematic illustrates principal drainage, project storage, and points of diversion to major diverters.




SCHEMATIC
YAKIMA RIVER BASIN

## PART I

The computation of TWSA for the Yakima River basin consists of three major ingredients—(1) a forecasted runoff of the natural flows which would be realized at the Parker gage[1], (2) the water accumulated in storage, and (3) water that has been diverted for use and returns to the streams for reuse (return flows). It is necessary that the components be calculated to cover compatible time frames; e.g., February through July.

The forecasted runoff of natural flows is computed as follows:

1. The historical snowpack, precipitation, and antecedent runoff[2] data are correlated with historical natural flow data observed at the Parker gage over a 37 year period of record. (1940-1976) to provide, for the current period of October through July, a volume forecast of natural runoff which will pass the Parker gage.

2. In order that the forecast of natural runoff at the Parker gage might approximate predevelopment conditions, several adjustments, based upon historical data over the 37-year period, are made in its computation. An adjustment is made to account for natural runoff, which entered the system but was retained in storage (plus) or flows in the river that were attributed to releases of stored runoff (minus); an adjustment is made to recognize the historical diversions of the five major water users (Kittitas Reclamation District, Roza Irrigation District, Sunnyside Division, Wapato Indian Project, and the Yakima-Tieton Irrigation District) and the numerous small canals upstream of the Parker gage which would have otherwise, prior to irrigation development, been observed at the gage (plus); and an adjustment is made to

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[1] Parker is the point of regulation on the Yakima River for flood control and the lowest point on the river which requires storage or natural flow water to meet irrigation diversions during summer operations. Diversions below Parker are satisfied by return flows; therefore, any water passing the Parker gage is essentially lost to the system.

[2] Antecedent runoff is the late summer runoff of the previous year which serves as an indicator for the current year base flow.

account for flows from irrigation diversions which have historically returned to the stream (minus).

Once the forecast of natural runoff is computed, the quantity of water available in storage is added as a second component of TWSA.

The third component in the TWSA computation is the volume of return flows that can, on the basis of the water supply anticipated to be available for diversions during the current irrigation season, be expected to enter the Yakima River system above Parker. Return flow can be defined as that portion of diverted water that will return to the stream and be available to downstream users.

The forecast of natural runoff, water available in storage, and return flows are combined to yield the total water supply available. A simplified example would be:

| | |
|---|---|
| Natural runoff forecast ..... | 100 acre-feet |
| Reservoir storage available ..... | 100 acre-feet |
| Return flow estimate ..... | 100 acre-feet |
| Total water supply available (TWSA) .... | 300 acre-feet |

## Part II

In the past, the primary purpose of the forecast of natural runoff, the first ingredient in computing TWSA, has been to formulate reservoir operations directed at (1) filling reservoirs for irrigation and (2) providing adequate reserve of storage space for flood control without jeopardizing irrigation supplies. Due to normal or above normal water conditions usually with considerable carryover in storage, the emphasis has been on the routing of the forecasted runoff of natural flows to prevent flooding rather than on the computation of TWSA and its distribution under the Consent Decree. Therefore, the procedure discribed (sic) in Part 1 has, in the past, been modified in the following respects.

1. In computing the forecasted runoff of the natural flows, the diversions of the small canals upstream of the Parker gage and the return flows have not been specifically identified. Historically, these diversions and return flows have been approximately equal in volume and have had an offsetting

affect in the computation of the forecasted natural flow. The adjustments which have been included, however, have been sufficient to result in forecasted natural flow reasonably close to predevelopment conditions for the purpose for which the forecast has been used, the routing of natural runoff.

2. The concept has been that the third component of the TWSA, return flows, was accounted for in the computation of the forecasted natural flow runoff since they were considered an offsetting factor to the small canal diversions. Therefore, in the past, this component has not been included as a specific addition to the TWSA estimate.

In order that the water users would be aware of the anticipated supplies that they would have available for use in 1977, the TWSA was computed and distributed under the Consent Decree. The February, March and April computation of TWSA followed the procedure outlined in Part II. The fact that the return flows are not included in the TWSA estimate using this procedure results in an underestimate of the water supply when making a distribution under the Consent Decree. Consequently, an erroneously lower water supply was projected for proratable water right holders since these rights are only satisfied after the nonproratable rights are fully met. In May, TWSA was computed by the procedure outlined in Part I, which includes return flow as a specific addition, and the supply available for distribution to the proratable water rights increased by about 350,000 acre-feet from the April estimate.

## 1977 TOTAL WATER SUPPLY AVAILABLE ESTIMATE AND REVISIONS

This section presents a monthly chronology of conditions and events related to the 1977 TWSA estimate through May 1977. Tables 3 and 4 summarize monthly precipitation and runoff data for the period October 1976 through May 1977 and contrast precipitation and runoff actually experienced during this period with normal levels. Table 5 presents runoff forecasts made at the beginning of each nonth by the Bureau of Reclamation, Soil Conservation Service, and National Weather Service.

This section also discusses Reclamation's February TWSA estimate, subsequent revisions to that forecast in April and May, and factors related to those revisions. Table 6 summarizes these estimates.

*October 1976*

Major canal diversions for the 1976 irrigation season had terminated by October 20.

Precipitation levels in October were extremely low. Records show that precipitation ranged from 28 percent of normal at the Rimrock measuring station to a high of 50 percent at the Keechelus station. Total precipitation measured at the five major reservoirs averaged only 38 percent of normal.

Keechelus Dam was closed for gate replacement, and all inflow was being stored. The gates at Bumping Lake were open and inoperable because of damage resulting from a fire at the gatehouse on Labor Day. However, Bumping Lake closure was not a concern at this time since the dam usually is not closed until later in the water year. Cle Elum Dam was closed for inspection of cylinder gates. Kachess and Tieton Dams were operating at a controlled release of 40 cubic feet per second.

*November 1976*

November precipitation levels remained extremely low. Rimrock station recorded precipitation at 16 percent of normal. Precipitation measured at Keechelus station was 48 percent of normal. Precipitation at all reservoirs averaged 36 percent of normal. October through March precipitation levels in the Yakima basin bear heavily on calculation of the water supply forecasts, and one-third of this time period had passed with critically low recordings.

## Table 3.—Precipitation Data, Yakima Project, Washington (inches)

| Reservoir(1) | Oct. | Nov. | Dec. | Jan. | Feb. | March | April | May |
|---|---|---|---|---|---|---|---|---|
| Bumping Lake | | | | | | | | |
| 1976-1977 | 1.35 | 1.79 | 2.05 | 1.26 | 2.35 | 3.42 | 1.31 | 2.71 |
| Normal(2) | 4.09 | 7.53 | 9.07 | 8.75 | 6.04 | 4.50 | 2.56 | 1.75 |
| Percent normal | 33 | 24 | 23 | 14 | 39 | 76 | 51 | 155 |
| Cle Elum Lake | | | | | | | | |
| 1976-1977 | 1.20 | 2.03 | 3.00 | 2.76 | 3.16 | 2.71 | .62 | .83 |
| Normal(2) | 3.38 | 5.76 | 6.84 | 6.87 | 4.48 | 3.02 | 1.75 | 1.21 |
| Percent normal | 36 | 35 | 44 | 40 | 71 | 90 | 35 | 69 |
| Kachess Lake | | | | | | | | |
| 1976-1977 | 1.63 | 3.58 | 4.24 | 3.73 | 4.10 | 4.86 | .97 | 1.87 |
| Normal(2) | 4.84 | 7.73 | 9.54 | 9.72 | 6.67 | 4.85 | 3.07 | 1.85 |
| Percent normal | 34 | 46 | 44 | 38 | 61 | 100 | 32 | 101 |
| Keechelus Lake | | | | | | | | |
| 1976-1977 | 3.22 | 4.75 | 6.04 | 4.14 | 5.86 | 7.90 | 1.96 | 2.60 |
| Normal(2) | 6.39 | 9.99 | 11.57 | 11.02 | 8.04 | 6.20 | 4.05 | 2.57 |
| Percent normal | 50 | 48 | 52 | 38 | 73 | 127 | 48 | 101 |
| Rimrock Lake | | | | | | | | |
| 1976-77 | .61 | .65 | 1.34 | .22 | 1.50 | 2.07 | .24 | 1.17 |
| Normal(2) | 2.16 | 4.10 | 4.86 | 4.63 | 2.97 | 2.05 | 1.25 | .93 |
| Percent normal | 28 | 16 | 28 | 5 | 51 | 101 | 19 | 126 |
| Total | | | | | | | | |
| 1976-1977 | 8.01 | 12.80 | 16.67 | 12.11 | 16.97 | 20.96 | 5.10 | 9.18 |
| Normal(2) | 20.86 | 35.11 | 41.88 | 40.99 | 28.20 | 20.62 | 12.68 | 8.31 |
| Percent normal | 38 | 36 | 40 | 30 | 60 | 102 | 40 | 110 |

(1) Clear Lake, just above Tieton Dam, is not included in this tabulation. With an active storage capacity of 5,300 acre-feet in the total system storage capacity of 1,070,700 acre-feet, it plays a very small role in operations. Because of its limited storage capacity and minimal fluctuations during the operating season, Clear Lake is included only as a part of the Yakima Project system active storage capacity.

(2) 1940-1975 period except Kachess, which is 1944-1975.

## Table 4.—Runoff Data, Yakima Project, Washington (1,000 acre-feet)

| Reservoir(1) | Oct. | Nov. | Dec. | Jan. | Feb. | March | April | May |
|---|---|---|---|---|---|---|---|---|
| Bumping Lake | | | | | | | | |
| 1976-1977 | 3.6 | 4.3 | 4.1 | 5.4 | 5.4 | 4.5 | 13.2 | 20.9 |
| Normal(2) | 6.9 | 13.2 | 14.5 | 13.2 | 13.1 | 11.1 | 16.6 | 44.6 |
| Percent normal | 52 | 33 | 28 | 41 | 41 | 41 | 80 | 47 |
| Cle Elum Lake | | | | | | | | |
| 1976-1977 | 11.8 | 21.2 | 22.5 | 40.1 | 27.1 | 23.4 | 65.6 | 63.7 |
| Normal(2) | 27.7 | 44.6 | 42.0 | 41.0 | 38.9 | 37.4 | 64.4 | 152.9 |
| Percent normal | 43 | 48 | 54 | 98 | 70 | 63 | 102 | 42 |
| Kachess Lake | | | | | | | | |
| 1976-1977 | 1.8 | 8.2 | 12.2 | 15.6 | 11.7 | 11.0 | 21.4 | 19.0 |
| Normal(2) | 9.5 | 18.6 | 18.6 | 19.4 | 17.8 | 16.0 | 25.2 | 45.0 |
| Percent normal | 19 | 44 | 66 | 80 | 66 | 69 | 85 | 42 |
| Keechelus Lake | | | | | | | | |
| 1976-1977 | 5.1 | 13.2 | 15.4 | 21.3 | 14.2 | 11.2 | 27.5 | 22.1 |
| Normal(2) | 13.9 | 24.1 | 21.7 | 21.5 | 19.5 | 15.8 | 26.9 | 49.0 |
| Percent normal | 37 | 55 | 71 | 99 | 73 | 71 | 102 | 45 |
| Rimrock Lake | | | | | | | | |
| 1976-77 | 16.3 | 12.1 | 10.5 | 11.5 | 9.9 | 10.3 | 19.1 | 24.1 |
| Normal(2) | 16.2 | 22.5 | 23.9 | 24.5 | 26.1 | 29.3 | 33.2 | 64.7 |
| Percent normal | 101 | 54 | 44 | 47 | 38 | 35 | 58 | 37 |
| Total | | | | | | | | |
| 1976-1977 | 38.6 | 59.0 | 64.7 | 93.9 | 68.3 | 60.4 | 146.8 | 149.8 |
| Normal(2) | 74.2 | 123.0 | 120.7 | 119.6 | 115.4 | 109.6 | 166.3 | 356.2 |
| Percent normal | 52 | 48 | 54 | 79 | 59 | 55 | 88 | 42 |

(1) Clear Lake, just above Tieton Dam, is not included in this tabulation. With an active storage capacity of 5,300 acre-feet in the total system storage capacity of 1,070,700 acre-feet, it plays a very small role in operations. Because of its limited storage capacity and minimal fluctuations during the operating season, Clear Lake is included only as a part of the Yakima Project system active storage capacity.

(2) 1958-1972 average.

## Table 5.—Runoff Forecast, Yakima River at Parker, Yakima Project, Washington (1,000 acre-feet)

| Forecast Date | Forecast Period | Bureau of Reclamation(1) Volume | Bureau of Reclamation(1) % of Normal 1958-72 | Soil Conservation Service(2) Volume | Soil Conservation Service(2) % of Normal 1958-72 | National Weather Service(3) Minimum Probable | NWS % of Normal 1958-72 | NWS Most Probable | NWS % of Normal 1958-72 | NWS Maximum Probable | NWS % of Normal 1958-72 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| January | January-July | 1,781 | 64 | | | | | | | | |
| | April-July | | | No January Forecast Made | | 610 | 35 | 987 | 57 | 1,370 | 79 |
| | April-September | | | | | | | | | | |
| February | February-July | 1,077 | 42 | | | | | | | | |
| | April-July | | | 610 | 36 | | | | | | |
| | April-September | | | 640 | 36 | 332 | 19 | 549 | 32 | 879 | 51 |
| March | March-July | 700 | 31 | | | | | | | | |
| | April-July | | | 365 | 21 | | | | | | |
| | April-September | | | 380 | 22 | 198 | 11 | 372 | 22 | 687 | 40 |
| April | April-July | 682 | 35 | | | | | | | | |
| | April-July | 682 | 35 | 460 | 27 | | | | | | |
| | April-September | | | 480 | 28 | 287 | 17 | 533 | 31 | 885 | 51 |
| May | May-July | 349 | 23 | | | | | | | | |
| | April-July | | | 290 | 22 | | | | | | |
| | April-September | | | | | 248 | 14 | 427 | 25 | 745 | 43 |
| | | (4) | | (5) | | | | (6) | | | |

(1) USBR forecast period=date through July.
(2) SCS forecast periods=April through July and April through September.
(3) NWS forecast period=April through September.
(4) Average January-July=2,792,000 acre-feet
Average February-July=2,541,000 acre-feet
Average March-July=2,256,000 acre-feet
Average April-July=1,960,000 acre-feet
Average May-July=1,550,000 acre-feet
(5) Average April-July=1,701,000 acre-feet
(6) Average April-Sept.=1,730,000 acre-feet

Bumping Lake Dam remained open in accordance with usual winter operating procedure. Keechelus and Cle Elum Dams remained closed for construction and maintenance. Releases of about 40 cubic feet per second continued at Kachess and Tieton Dams.

*December 1976*

The Rimrock station recorded precipitation was 28 percent of normal, and the Keechelus station had 52 percent. Of even greater concern was the fact that accumulated precipitation levels since October were only about 35 percent of normal. December is usually a high yield month for precipitation in the basin. However, snow courses observed at White Pass and Bumping, Cle Elum, and Keechelus Lakes were bare. Bumping Lake Dam remained open. Keechelus, Kachess, Cle Elum, and Tieton dams were closed.

*January 1977*

Drought conditions in January caused great alarm. The Rimrock station recorded precipitation levels were 5 percent of normal. Precipitation recorded at Keechelus was 38 percent. Precipitation during the month at the five reservoirs averaged about 30 percent of normal. The snow water content at the end of the month for the six snow courses used in Reclamation forecasts was only 10.6 percent of the 1940-1971 average. The October through January precipitation accumulation was about 35 percent of normal. These values were lower than any year since complete recording began in 1940.

*February 1977*

The initial estimate of TWSA for 1977 was made in February. As discussed previously, the forecast of natural runoff is a major component in computing TWSA. Early in February, application of the customary Reclamation methodology resulted in a natural runoff forecast of 1,077,000 for the period February through July. This forecast recognized the low precipitation levels that had occurred since October but assumed that normal precipitation

levels would occur over the balance of the forecast period. This is the usual procedure followed in the forecast.

Weather conditions were deviating drastically from normal levels. Drought conditions were unprecedented in basin records. Because of this, there was concern about adopting the initial 1,077,000 acre-foot runoff forecast which assumed that normal precipitation levels would be realized during the forthcoming months.

Runoff forecasts of the National Weather Service and Soil Conservation Service indicated an extremely low runoff condition (table 5). The National Weather Service's February forecast covered a range of three runoff conditions—minimum probable, most probable, and maximum probable runoff for the period April through September. The minimum probable forecast was 332,000 acre-feet, or 19 percent of normal; the most probable was 549,000 acre-feet, or 32 percent of normal; and the maximum probable was 879,000 acre-feet, or 51 percent of normal. The Soil Conservation Service's February forecast was 640,000 acre-feet, or 36 percent of normal.

A direct comparison of these forecasts could not be made. For example, Reclamation's 1,077,000 acre-foot forecast covered the period February through July, while the National Weather Service and Soil Conservation Service forecasts covered the period April through September. Therefore, the Bureau's 1,077,000 acre-foot estimate was adjusted to April by taking out anticipated February and March runoff contributions. This resulted in a residual estimate of 847,000 acre-feet for the April through July period. This estimate still exceeded the National Weather Service's most probable estimate of 549,000 acre-feet and the Soil Conservation Service's forecast of 640,000 acre-feet. The effect of extending the Reclamation forecast to September to be consistent with the National Weather Service and Soil Conservation Service was not computed. This adjustment would have had the effect of increasing the Reclamation forecast which was already high in comparison.

Water users witnessing the unprecedented drought conditions were anxious to know what supply could be expected so that they

could make adjustments in their operations. In recognition of (1) extremely low precipitation levels since October, (2) the likelihood that the drought conditions would continue into the foreseeable future, and (3) the fear of promising more water than could be delivered, Reclamation adopted a conservative or "bottom-line" runoff forecast of 360,000 acre-feet.

The forecast of natural runoff for the period April through September (360,000 acre-feet) was added to an estimated April 1 storage available (860,000 acre-feet) to produce a TWSA estimate of 1,220,000 acre-feet. Since water users were anxious to know the effect of the low TWSA estimate on their operations, Reclamation made a tentative distribution of the water supply (1,220,000 acre-feet) in accordance with the 1945 Consent Decree allocation. Reclamation had not in earlier years related TWSA to the decree because the water supply had been sufficient since 1945 to preclude disasterous water supply conditions even though some irrigators had experienced significant shortages.

The 1,220,000 acre-feet was allocated among all rights recognized in the Consent Decree. It was assumed that the nonproratable users would use 100 percent of their entitlement. The effect of this allocation was felt most severely by holders of proratable rights since they are the junior rights in the valley. Because the water supply for the Kittitas Reclamation District and the Roza Irrigation District is entirely proratable, the projected water supply for these districts was critically low. The February TWSA estimate indicated that the water supply available to the two districts would be 7 percent of decree entitlements. Subsequently, irrigators began to initiate actions to obtain supplemental water supplies and adjust cropping programs.

Precipitation for the month of February remained below normal. Precipitation levels at the reservoirs averaged 60 percent of normal. Precipitation accumlation for the October through February period was 40 percent of normal. All reservoirs were storing inflow. Bumping Lake gates were closed, and the reservoir subsequently filled May 12. May through June is the usual filling period for Bumping Lake.

*March 1977*

Weather conditions during February did little to improve runoff, and the March 1 estimate of TWSA remained unchanged (1,220,000 acre-feet).

Improved precipitation levels and snowpack during March were encouraging. Precipitation at the five major reservoirs totaled 102 percent of normal.

*April 1977*

With the improved precipitation conditions in March, the estimated TWSA of 1,220,000 acre-feet was increased to 1,390,000 acre-feet (table 6). The forecast of natural runoff was increased from 360,000 acre-feet to 500,000 acre-feet, and the storage content was adjusted from 860,000 acre-feet, to 890,000 acre-feet.

The new TWSA estimate was allocated to all water rights recognized in the 1945 Consent Decree. This increased the supply to the Roza and Kittitas districts from 7 to 13 percent of their decree entitlements.

Late in the month, there began to be evidence that irrigation diversions were being met with less depletion of the TWSA than had been anticipated. This improved water supply condition was attributed to water conservation by irrigators.

*May 1977*

Operational data continued to show that diversions were being met with less demand on storage and natural flow than had been anticipated. A significant part of the demand was being satisfied by return flows. It was apparent at this time that the water supply available and the demand were seriously out of balance.

A review of the February, March, and April TWSA estimates and a comparison of the procedure used in their computation (described in Part II of the previous section) with the correct computation procedure (described in Part I) showed that return flows had not been properly accounted for if the provisions of the

Consent Decree are to be applied. As previously mentioned, the historical diversions of the small canals and return flows to the system have been approximately equal and thus in the forecast computation were not specifically identified since they had a cancelling effect. However, since the intent of the forecast is to provide an estimate of the natural runoff which is anticipated to occur in the year being analyzed, and since the TWSA as defined in the decree includes natural flows, stored water, and waters from other sources, it is necessary to add to the forecasted natural flows and stored waters the waters which, after diversion and application by the users, return to the waterways for subsequent reuse by others. This was not done under the procedure followed in computing TWSA in February, March, and April. This was the error and resulted in an artificially high projection of shortages to holders of proratable water rights.

It was estimated that the return flow contribution to TWSA for 1977 would be approximately 350,000 acre-feet. It is not possible to precisely forecast return flow volumes. Dry soil conditions, reduced irrigation diversions, and onfarm conservation, as anticipated at the beginning of the 1977 irrigation season, would tend to reduce return flows. However, warm temperatures in April produced a favorable runoff pattern which could offset the above effects.

Even though the snowpack was critically low, April weather produced a runoff pattern that made it possible to utilize or divert over 90 percent of the snowmelt water. With this runoff condition, near-normal irrigation diversions were possible throughout the valley. These full diversions combined with above-normal precipitation levels in March and May improved soil moisture and ground water conditions. A review of annual estimates from 1960-1975 shows that return flow volumes were about 400,000 acre-feet for 12 of the 16 years. Volumes of 450,000 to 500,000 acre-feet occurred during 2 years of the 16-year period, and in 2 years the volume was estimated at slightly less than 350,000 acre-feet.

Adding the estimated return flow volume of 350,000 acre-feet to the natural runoff forecast (500,000 acre-feet) and storage content (890,000 acre-feet) produced a May TWSA estimate of 1,740,000 acre-feet for the April through September period.

Allocation of the revised TWSA estimate (1,740,000 acre-feet) to all rights recognized in the 1945 Consent Decree resulted in a major improvement in water supply outlook. Since nonproratable rights are satisfied first from TWSA, all of the increase in TWSA accrued to proratable water right holders. Two large districts (Kittitas Reclamation District and Roza Irrigation District) hold 55 percent of the proratable rights; and since that is the only type of water right held by these two districts, their entire water supply is affected. Because all of the increase in TWSA was allocated to proratable water right holders, the supply to the Kittitas and Roza districts increased dramatically from 13 percent to 50 percent. This 385 percent increase for these two districts compares to a 25 percent increase in the total project water supply as a result of the revision.

Table 6.—Total Water Supply Estimate and Revisions (million acre-feet)

| | Feb. | March | April | May |
|---|---|---|---|---|
| USBR initial forecast natural runoff .. | 1.077(1) | | | |
| TWSA estimate | | | | |
| Adopted forecast of natural runoff(2) | .360 | .360 | .500 | .500 |
| Storage contents(3) ..... | .860 | .860 | .890 | .890 |
| Return flow ..... | — | — | — | .350 |
| TWSA estimate ..... | 1.220 | 1.220 | 1.390 | 1.740 |

(1) 1.077 represents February through July forecast. This figure adjusted to an April through July forecast would be .847.

(2) Forecast for April through September.

(3) April 1 storage (estimated prior to April 1, actual thereafter).

## CLE ELUM LAKE STORAGE

The anticipated shortages in the supply of water for the Kittitas Reclamation District and the Roza Irrigation District prompted the districts and the Bureau of Reclamation to seek alternative sources of water. One possibility which both districts were interested in was the evacuation of water from the dead storage pool of Cle Elum Lake. The active reservoir capacity of the lake is 436,900 acre-feet; approximately 100,000 acre-feet of water could be obtained by installing facilities to pump from the dead storage pool. The proposed plan, accepted by the districts through resolutions of the directors indicating their willingness to enter into repayment contracts, involved the installation and operation of facilities on barges to pump from the dead storage pool. The estimated cost of $3 million was to be financed by a grant-loan from the State of Washington and funds provided under the Federal Emergency Drought Act. Kittitas was scheduled to repay 47 percent of the cost and Roza 53 percent.

As a result of the May TWSA estimate, the pumping of 100,000 acre-feet of water from the dead pool would provide Kittitas with a water supply of 64 percent of its decree rights and Roza 64 percent in lieu of the 50 percent both districts are now

estimated to receive. However, the Kittitas directors have indicated their desire not to participate in the pumping plan. The Roza directors and possibly the Wapato Indian Project are interested in securing the Kittitas Reclamation District share. Discussions are ongoing with these two entities.

Water from the dead storage pool will be used this year as needed and next year if drought conditions persist. There is also a potential use during the replacement of the outlet works cylinder gates which is scheduled for 1978. When the gate replacement is initiated, the only way to evacuate water from the reservoir will be by means of the spillway which will preclude the evacuation of about 150,000 acre-feet of active capacity in addition to the dead storage pool. The use of the pumping installation could permit the withdrawal of the 150,000 acre-feet.

## CONCLUSIONS

1. Prior to February, 1977, unprecedented drought conditions existed in the Yakima Basin. The Bureau of Reclamation made a 1977 water supply forecast. This was compared with the forecasts made by the Soil Conservation Service and the National Weather Service. These forecasts were lower than the Bureau's and because of the unprecedented drought conditions, the Bureau reduced its forecast by projecting a continuation of drought conditions throughout 1977.

2. Distribution of the total water supply available to all water right diversions recognized in the 1945 Consent Decree had not been necessary previously because of more favorable water supply conditions. This is the first time that a detailed TWSA computation and distribution had been necessary to project water supply available to parties recognized in the decree.

3. Bureau of Reclamation computation of the TWSA in the February through April estimates did not adequately account for return flows. This resulted in a significant underestimate of TWSA. This short supply, when related to the allocation specified in the 1945 Consent Decree, had the result of producing a forecast of severe water shortages for holders of proratable, or junior, water rights recognized in the decree.

4. The May estimate of TWSA resulted in a 25 percent increase in the total project water supply. However, this additional supply all accrued to those holding proratable or junior water rights since senior water right holders had already been satisfied. The two districts most affected are the Kittitas Reclamation District and the Roza Irrigation District since all of their water supply is from proratable water rights. Therefore, the revised estimate resulted in a 385 percent increase in projected supply for these two districts.

5. The May TWSA estimate resulted in a major improvement in the supply outlook for proratable water right holders. The May TWSA estimate of 1,740,000 acre-feet represented about 70 percent of the total project water supply requirements.

## Appendix F

January 31, 1945

In the District Court of the United States for the
Eastern District of Washington, Southern Division
Civil Action No. 21
Kittitas Reclamation District:
Selah & Moxee Irrigation District: and
United States of America
Plaintiffs,
vs.
Sunnyside Valley Irrigation District:
Christina Marina Eder:
Luis Luccolini and Ruffemia Luccolini, his wife:
Mazine A. Fox and Josie R. Fox, his wife:
Elmer A. Bacon and Artie Bacon, his wife:
Philip Louis Parks and Ollie D. Parks, his wife:
Roza Irrigation District:
Yakima Reservation Irrigation District:
Yakima-Tieton Irrigation District:
Tieton Water Users' Association:
Grandview Irrigation District:
Granger Irrigation District:
Prosser Irrigation District:
Snipes Mountain Irrigation District:
Sunnyside Irrigation District:
Zillah Irrigation District:
Broadway Irrigation Company:
Moxee Ditch Company Sub-A:
Naches-Selah Irrigation District:
Terrace Heights Irrigation District:
Union Gap Irrigation District:
West Side Irrigating Company:
Yakima Valley Canal Company:
Outlook Irrigation District: and
Cascade Irrigation District.
Defendants

## JUDGMENT

The above-entitled cause having come on for hearing and it appearing to the Court that the plaintiffs and the defendants have concluded and settled all issues in this cause: that the parties hereto have joined in a Motion for Entry of Judgment: that the provisions hereafter set forth in this judgment constitute the agreement of the parties with respect to such issues; and that upon consideration of the record herein and the Motion for Entry of Judgment the Court finds that the Motion for Entry of Judgment should be granted:

NOW, THEREFORE, it is ordered, adjudged and decreed as follows:

1. The defendants, Christina Mariea Eder, Luis Luccolini and Ruffenia Luccolini, his wife, Mazine Z. Fox and Josie R. Fox, his wife, Elmer A. Bacon and Artie Bacon, his wife, Philip Louis Parks and Ollie D. Parks, his wife, and the Yakima Reservation Irrigation District are dismissed as defendants in this cause.

2. The obligations of the United States to deliver water from the natural flow of the Yakima River, and its tributaries, from storage in its various reservoirs on the Yakima watershed, and from other sources, to the plaintiffs, to the defendants, and to the lands within the Wapato Indian Irrigation Project, are as set forth hereafter in this judgment.

3. SUNNYSIDE DIVISION.—The United States shall divert each year into the Sunnyside Main Canal, hereafter referred to as the Sunnyside Canal, to supply the water rights of the parties entitled to receive water from the Sunnyside Canal in the Sunnyside Division, a total quantity of 449,520 acre-feet of water on the following monthly schedule:

| | Average Rate of Diversion in Cubic Feet per Second | Diversion in Acre-feet |
|---|---|---|
| April | 895 | 53,230 |
| May | 1,209 | 74,340 |
| June | 1,280 | 76,150 |
| July | 1,290 | 79,300 |
| August | 1,290 | 79,300 |
| September | 995 | 59,190 |
| October | 456 | 28,010 |
| | | 449,520 |

The foregoing schedule of diversions shall be increased commensurate with the quantities of water to be acquired from the United States by the Grandview, Outlook, Granger, Prosser and Zillah Irrigation Districts, as set forth in paragraph 6 of this judgment: Provided, however, that the water acquired by those Districts shall not be diverted into the Sunnyside Canal when to do so would augment the schedule of diversions in excess of the safe carrying capacity of the Canal.

(a) SUNNYSIDE VALLEY IRRIGATION DISTRICT.—The United States shall divert annually into the Sunnyside Canal a total quantity of 340,944 acre-feet of water to supply the water rights of said District and the water users within the District, including water users who have no water right applications or contracts with the United States, on the following schedule:

| | Average Rate of Delivery in Cubic Feet per Second | Delivery in Acre-feet |
|---|---|---|
| April | 658 | 39,159 |
| May | 901 | 55,409 |
| June | 960 | 57,089 |
| July | 973 | 59,798 |
| August | 983 | 60,439 |
| September | 753 | 44,780 |
| October | 612 | 24,270 |
| | | 340,944 |

(b) PROSSER IRRIGATION DISTRICT.—The United States shall divert into the Sunnyside Canal 7,347 acre-feet of

water annually, which quantity of water includes estimated losses in said Canal between the point of diversion and the point of delivery, and the United States or its successor in the operation of the said Canal shall deliver pursuant to the contract dated December 1, 1917, with the Prosser Irrigation District, at Mile 55.05 and Mile 59.32 of the Sunnyside Canal in an amount not exceeding the following schedule:

| Month | Acre-feet per acre |
|---|---|
| April | 0.40 |
| May | 0.48 |
| June | 0.56 |
| July | 0.58 |
| August | 0.58 |
| September | 0.40 |
| Total | 3.00 |

The annual irrigation season shall be from April to September, inclusive, and the maximum rate of flow at the said points of delivery during any one month shall not exceed the following schedule:

| | | | |
|---|---|---|---|
| April | 14 | second-feet | |
| May | 16 | " | " |
| June | 21 | " | " |
| July | 21 | " | " |
| August | 21 | " | " |
| September | 14 | " | " |

Provided, however, that water solely from the natural flow of the Yakima River will be delivered by the United States during October, if desired by the District and found available by the officer in charge of the administration of the water supply for the Yakima project.

The United States or its successors in the operation of the said Canal, in accordance with the contract of June 1, 1925, with the Grandview Irrigation District and the Prosser Irrigation District, shall deliver to the Prosser Irrigation District for use upon the 15.21 acres of land, to which reference is made in said contract, 2.75 acre-feet of water per acre; and the amount of water to be delivered to the Grandview Irrigation District pursuant to its

contract with the United States, dated August 4, 1916, shall be reduced by the proportional amount applicable to the said 15.21 acres and the amount of water to be delivered by the United States pursuant to its contract with the Prosser Irrigation District dated December 1, 1917, shall be correspondingly increased.

The foregoing quantities of water for the Prosser Irrigation District shall be increased 2,500 acre-feet upon the execution of a contract for the acquisition of that quantity of water by the District and the United States as provided in paragraph 6 of this judgment. The increased quantity of water shall not, however, be diverted into the Sunnyside Canal when to do so would augment the schedule of diversions in excess of the safe carrying capacity of the Canal.

The foregoing obligation of the United States to deliver water is subject to the conditions and limitations set forth in said contracts.

(c) SNIPES MOUNTAIN IRRIGATION DISTRICT.—The United States shall divert into the Sunnyside Canal 9,247 acre-feet of water annually, which quantity of water includes estimated losses in said Canal between the point of diversion and the point of delivery, to supply the amounts of water provided for by contracts between the United States and the Snipes Mountain Irrigation District dated November 16, 1914, and July 11, 1931. There shall be delivered by the United States or its successor in the operation of the Sunnyside Canal a total of 5,265 acre-feet, pursuant to the contract dated November 16, 1914, between the United States and the Snipes Mountain Irrigation District, at the following points on the Snipes Mountain Canal: (a) at Mile 9.05, (b) at Mile 10.20, and (c) near Mile 6.42. The annual irrigation season shall be from April to September, inclusive; the maximum rate of flow at the said points of delivery which the District may demand during any one month, based on the following schedule, shall be 17.7 cubic feet per second and the monthly supply of water shall not exceed the following monthly schedule of deliveries:

| Month | Acre-feet Total of Contract |
|---|---|
| April | 685 |
| May | 840 |
| June | 1050 |
| July | 1055 |
| August | 950 |
| September | 685 |
| Total | 5265 |

Provided, however, that water solely from the natural flow of the Yakima River will be delivered by the United States during October, if desired by the District and found available by the officer in charge of the administration of the water supply for the Yakima project.

In addition to the water supply provided for in said contract of November 16, 1914, the United States or its successors in the operation of the Sunnyside Canal pursuant to a contract dated July 11, 1931, with the District, shall deliver annually a total of 2674 acre-feet at the following points; (a) Mile 9.05 of the Snipes Mountain Canal; (b) at Mile 1.15 of the West Branch of the Snipes Mountain Canal; and (c) near Mile 6.42 of the Snipes Mountain Canal. The annual irrigation season shall be from April 1 to September 30, inclusive, and the mean monthly supply of water to be furnished under said contract shall not be in excess of the following schedule of percentages of the total annual diversion:

| Month | Per Cent | Acre-feet Total of Contract |
|---|---|---|
| April | 10 | 287.40 |
| May | 16 | 459.84 |
| June | 19 | 546.06 |
| July | 21 | 603.54 |
| August | 20 | 574.80 |
| September | 14 | 402.36 |
| Totals | 100 | 2,874.00 |

The foregoing obligation of the United States to deliver water is subject to the conditions and limitations set forth in said contracts.

(d) GRANDVIEW IRRIGATION DISTRICT.—The United States shall divert into the Sunnyside Canal 14,586 acre-feet of water annually which quantity of water includes estimated losses in said Canal between the point of diversion and the point of delivery, to supply the amounts of water provided for in contracts between the United States and Grandview Irrigation District dated October 4, 1916, and February 21, 1933. The United States or its successor in the operation of the Sunnyside Canal shall deliver water pursuant to the said contracts at Mile 50.35 of the Sunnyside Canal and at Mile 2.87 of the Rocky Ford branch canal of the said Sunnyside Canal in an amount not exceeding the following monthly schedule:

| Month | Acre-feet per acre |
|---|---|
| April | .36 |
| May | .45 |
| June | .52 |
| July | .53 |
| August | .53 |
| September | .36 |
| Total | 2.75 |

Provided, however, that water solely from the natural flow of the Yakima River shall be delivered by the United States during October, if desired by the District and found available by the officer in charge of the administration of the water supply for the Yakima project.

The annual irrigation season shall be from April to September, inclusive, and the maximum rate of flow at the said points of delivery which the District may demand during any one month, based on the above schedule, shall be 34 c.f.s.

There shall be delivered by the United States or its successor in the operation of the Sunnyside Canal in accordance with the contract of June 1, 1925, with the Grandview Irrigation District and the Prosser Irrigation District, to the Prosser Irrigation

District for use upon the 15.21 acres of land, to which reference is made in said contract, 2.75 acre-feet of water per acre; and the amount of water to be delivered to the Grandview Irrigation District pursuant to its contract with the United States, dated August 4, 1916, shall be reduced by the proportional amount applicable to the said 15.21 acres and the amount of water to be delivered by the United States pursuant to its contract with the Prosser Irrigation District dated December 1, 1917, shall be correspondingly increased.

The United States or its successor in the operation of the Sunnyside Canal shall also deliver each year, in addition to the water supply provided for in the foregoing contract of August 4, 1916, pursuant to its contract of February 21, 1933, with the District, 1970 acre-feet of water at Mile 50.35 of the Sunnyside Canal. The annual irrigation season for the delivery of water shall be from April 1 to October 31, inclusive, and the mean monthly supply of water to be furnished under said contract shall not exceed the following schedule of percentages of the total annual diversion:

| Month | Per Cent | Acre-feet Total of Contract |
|---|---|---|
| April | 9 | 184 |
| May | 26 | 501 |
| June | 8 | 151 |
| July | 9 | 186 |
| August | 9 | 186 |
| September | 18 | 362 |
| October | 21 | 400 |
| Totals | 100 | 1,970 |

The foregoing quantities of water for the Grandview Irrigation District shall be increased 3,000 acre-feet upon the execution of a contract for the acquisition of that quantity of water by the District and the United States as provided in paragraph 6 of this judgment. The increased quantity of water shall not, however, be diverted into the Sunnyside Canal when to do so would augment the schedule of diversions in excess of the safe carrying capacity of the Canal.

The foregoing obligation of the United States to deliver water is subject to the conditions and limitations set forth in said contract.

(e) ZILLAH IRRIGATION DISTRICT.—The United States shall divert into the Sunnyside Canal 362 acre-feet of water annually, which quantity of water includes estimated losses from the point of diversion to the point of delivery, to supply the amounts of water provided for in a contract dated September 29, 1922, as amended by the contract of June 22, 1931, between the United States and the Zillah Irrigation District. The United States or its successor in the operation of the Sunnyside Canal shall deliver water pursuant to the said contracts at turnouts numbered 15.47 and 15.62 and 16.82 on the Sunnyside Canal and the mean monthly supply of water shall not exceed the following schedule of percentages of the total diversion:

| Month | Per Cent |
|---|---|
| April | 9 |
| May | 15 |
| June | 19 |
| July | 19 |
| August | 19 |
| September | 13 |
| October | 6 |
| Total | 100 |

The annual irrigation season for the delivery of water shall be from April 1 to October 31, inclusive, each year.

The foregoing quantities of water for the Zillah Irrigation District shall be increased 200 acre-feet upon the execution of a contract for the acquisition of that quantity of water by the District and the United States as provided in paragraph 6 of this judgment. The increased quantity of water shall not, however, be diverted into the Sunnyside Canal when to do so would augment the schedule of diversions in excess of the safe carrying capacity of the Canal.

The foregoing obligation of the United States to deliver water is subject to the conditions and limitations set forth in said contracts.

(f) GRANGER IRRIGATION DISTRICT.—The United States shall divert into the Sunnyside Canal 5,454 acre-feet of water annually which quantity of water includes estimated losses from the point of diversion to the point of delivery, to supply the amounts of water provided for in a contract dated November 20, 1922, between the United States and the Granger Irrigation District. The United States or its successor in the operation of the Sunnyside Canal shall deliver water pursuant to said contract during the irrigation season from April 1 to September 30, inclusive, at the head of the pressure pipe at Mile 23 of the Sunnyside Canal, said water to be delivered to the District in amounts not to exceed the following schedule:

| Month | Acre-feet per acre |
|---|---|
| April | 0.40 |
| May | 0.48 |
| June | 0.56 |
| July | 0.58 |
| August | 0.58 |
| September | 0.40 |
| Total | 3.00 |

The maximum rate of flow which the District may demand during any one month shall be as follows:

| Month | Rate of flow |
|---|---|
| April | 10.9 c.f.s. |
| May | 12.6 " |
| June | 15.2 " |
| July | 15.2 " |
| August | 15.2 " |
| September | 10.9 " |

Provided, however, that water solely from the natural flow of the Yakima River shall be delivered by the United States during October, if desired by the District and found available by the officer in charge of the administration of the water supply for the Yakima project.

The foregoing quantity of water for the Granger Irrigation District shall be increased 1,800 acre-feet upon the execution of a contract for the acquisition of that quantity of water by the

District and the United States as provided in paragraph 6 of this judgment. The increased quantity of water shall not, however, be diverted into the Sunnyside Canal when to do so would augment the schedule of diversions in excess of the safe carrying capacity of the canal.

The foregoing obligation of the United States to deliver water is subject to the conditions and limitations set forth in said contract.

(g) OUTLOOK IRRIGATION DISTRICT.—The United States shall divert into the Sunnyside Canal 17,855 acre-feet of water annually, which quantity of water includes estimated losses from the point of diversion to the point of delivery, to supply the amount of water provided for in the contract between the United States and Outlook Irrigation District dated November 23, 1914, as amended by the contracts of August 1, 1916, and July 1, 1919, and the contract dated December 20, 1932. The United States or its successor in the operation of the Sunnyside Canal pursuant to the said contract of November 23, 1914, as amended, shall deliver 14,530 acre-feet at Mile 30.25 on the Sunnyside Canal. The annual irrigation season for the delivery of water shall be from April to September, inclusive, and the maximum rate of flow which the District may demand during any one month, based on the following schedule, shall not exceed 46 c.f.s. and the monthly supply of water shall not exceed the following schedule of deliveries:

| Month | Acre-feet Total of Contract |
|---|---|
| April | 1,890 |
| May | 2,380 |
| June | 2,730 |
| July | 2,820 |
| August | 2,820 |
| September | 1,890 |
| Total | 14,530 |

Provided, however, that water solely from the natural flow of the Yakima River shall be delivered by the United States during October, if desired by the District and found available by the

officer in charge of the administration of the water supply for the Yakima project.

The United States or its successor in the operation of the Sunnyside Canal, pursuant to the contract dated December 20, 1932, with the District, in addition to the water supply provided for in said contract of November 23, 1914, as amended, shall deliver annually 1,185 acre-feet at the headworks of the District in the Sunnyside Canal. The annual irrigation season for the delivery of water shall be from April 1 to October 31, inclusive, and the mean monthly supply of water to be delivered under the terms of said contract shall not exceed the following schedule of percentages of the total annual diversion:

| Month | Per Cent | Acre-feet Total of Contract |
|---|---|---|
| April | 6 | 70 |
| May | 11 | 130 |
| June | 16 | 185 |
| July | 15 | 180 |
| August | 15 | 180 |
| September | 12 | 145 |
| October | 25 | 295 |
| Totals | 100 | 1,185 |

The foregoing quantities of water for the Outlook Irrigation District shall be increased 4,500 acre-feet upon the execution of a contract for the acquisition of that quantity of water by the District and the United States as provided in paragraph 6 of this judgment. The increased quantity of water shall not, however, be diverted into the Sunnyside Canal when to do so would augment the schedule of diversions in excess of the safe carrying capacity of the Canal.

The foregoing obligation of the United States to deliver water is subject to the conditions and limitations set forth in said contracts.

(h) SUNNYSIDE IRRIGATION DISTRICT.—The United States shall divert into the Sunnyside Canal 21,044 acre-feet of water, which quantity of water includes estimated losses between the point of diversion and the point of delivery, to supply

the amounts of water provided for in a contract dated October 6, 1914, between the United States and the Sunnyside Irrigation District. The United States or its successor in the operation of the Sunnyside Canal shall deliver water pursuant to said contract to the headworks of the District, which are located on the West line of Section thirteen (13), Township nine (9) North, Range twenty-five (25) East, W.M., eleven hundred fifty-four and five-tenths (1154.5) feet North of the Southwest corner of said section, and the point at which said Canal enters said District. The annual irrigation season for the delivery of water shall be from April to September, inclusive, and the monthly supply of water shall not exceed the following schedule of deliveries:

| Month | Acre-feet Total of Contract |
|---|---|
| April | 2,410 |
| May | 2,960 |
| June | 3,700 |
| July | 3,690 |
| August | 3,350 |
| September | 2,410 |
| Total | 18,520 |

The maximum rate of flow which the District may demand during any one month, based on the above schedule, shall not exceed 60 c.f.s. Provided, however, that water solely from the natural flow of the Yakima River shall be delivered by the United States during October, if desired by the District and found available by the officer in charge of the administration of the water supply for the Yakima project.

The foregoing obligation of the United States to deliver water is subject to the conditions and limitations set forth in said contract.

(i) Nothing in this decree shall preclude the Prosser Irrigation District, Snipes Mountain Irrigation District, Grandview Irrigation District, Zillah Irrigation District, Granger Irrigation District, Outlook Irrigation District or Sunnyside Irrigation District from the permissive use of surplus water in the Sunnyside Canal if available in the month of October, to the same extent and under the same conditions as prior to the entry of this judgment.

4. WAPATO INDIAN IRRIGATION PROJECT.—The United States shall deliver, pursuant to the Act of August 1, 1914, 38 Stat. 582, in perpetuity for lands within the Yakima Indian Reservation, hereinafter referred to as the Wapato Indian Irrigation Project, at the northern boundary thereof, a total of 720 cubic feet of water per second.

The United States shall, pursuant to the agreement dated September 21, 1943, between the Bureau of Reclamation and the Office of Indian Affairs, which superceded the agreement of March 9, 1921, as amended by an agreement dated September 3, 1936, divert from the Yakima River 250,000 acre-feet of water each year for the lands of the Wapato Indian Irrigation Project, such water to be measured at the diversion works of the Wapato Indian Irrigation Project. The irrigation season for the delivery of the 20,000 acre-feet of water shall be from April 1 to September 30, each year, except as the season may be by the United States extended to include the month of October. The diversion of the said 250,000 acre-feet of water shall be in accordance with the following basic schedule:

| Month | Percent of Season Total |
|---|---|
| April | 9 |
| May | 21 |
| June | 20 |
| July | 23 |
| August | 21 |
| September | 6 |
| Total | 100 |

The foregoing basic schedule, as provided in the agreement of September 21, 1943, may be revised for a particular irrigation season or part of a season by agreement to be entered into prior to or during the irrigation season affected, between the Project Superintendent of the Bureau of Reclamation and the Project Engineer of the Office of Indian Affairs, to permit an interchange of quantities of water available at such time as storage is being released for use below Union Gap during the months of June, July, August and September and to permit the use of part of such available quantities during the month of October. The revision in

such schedule shall be effective only as to the months of June, July, August and September in the same irrigation season as the making of the agreement and only from the date of storage release.

The United States shall divert each year in addition to the water supply hereinabove set forth for the Wapato Indian Irrigation Project, in accordance with the agreement dated September 3, 1936, between the Office of Indian Affairs and the Bureau of Reclamation, and the Act of July 1, 1940, 54 Stat. 707, 100,000 acre-feet of water from the Yakima River, to be measured at the diversion works of the Wapato Indian Irrigation Project. The annual irrigation season for the delivery of such water shall be from April 1 to September 30 each year and the diversion of said 100,000 acre-feet shall be in accordance with the following basic schedule:

| Month | Percent of Season Total |
|---|---|
| April | 9 |
| May | 21 |
| June | 20 |
| July | 23 |
| August | 21 |
| September | 6 |
| Total | 100 |

The foregoing schedule, as provided in the agreement of September 3, 1936, may be revised by agreement between the Project Superintendent of the Bureau of Reclamation and the Project Engineer of the Office of Indian Affairs to permit, subsequent to the date of storage release, for use below Union Gap in the months of June, July, August and September, the use of water interchangeably during said months in an amount not to exceed 70,000 acre feet.

The foregoing obligation of the United States to deliver water is subject to the conditions and limitations set forth in said agreements.

5. TIETON DIVISION *(Tieton Water Users' Association and Yakima-Tieton Irrigation District)*. The United States shall divert annually into the Tieton Main Canal, to supply the water rights of parties entitled to receive water from the said Canal, for use on the Lands within the boundaries of the Yakima-Tieton Irrigation District, 96,000 acre-feet on the following monthly schedule:

| Month | Average Rate of Delivery in Cubic Feet per Second | Delivery in Acre-feet |
|---|---|---|
| May | 293 | 18,000 |
| June | 336 | 20,000 |
| July | 325 | 20,000 |
| August | 325 | 20,000 |
| September | 302 | 18,000 |
| | | 96,000 |

The foregoing schedule of diversions shall be increased commensurate with the quality of water to be acquired from the United States by the Yakima-Tieton Irrigation District as provided in paragraph 6 of this judgment: Provided, however, that the water acquired by that District shall not be diverted into the Tieton Main Canal when to do so would augment the schedule of diversions in excess of the safe carrying capacity of the Canal.

6. KITTITAS DIVISION *(Kittitas Reclamation District)*. The United States shall deliver to the Kittitas Reclamation District, pursuant to a contract dated February 16, 1921, as amended by the contracts of November 1, 1930, and June 4, 1940, and *January 10, 1945*, between the United States and the Kittitas Reclamation District, at a point opposite the headworks of the District constructed on the Yakima River in Section eleven (11), Township twenty (20) North, Range thirteen (13) East, W.M., during each irrigation season, 342,000 acre-feet of water measured at or near said diversion works for use upon lands within the boundaries of the District. The annual irrigation season for the delivery of water shall be from April 20 to October 15, inclusive, and the mean monthly supply of water shall not exceed the following schedule of percentages of the total annual diversion as hereinafter set forth:

| | |
|---|---|
| During April | 2% |
| During May | 17% |
| During June | 21% |
| During July | 21% |
| During August | 20% |
| During September | 13% |
| During October | 6% |

The foregoing obligation of the United States to deliver water is subject to the conditions and limitations set forth in said contracts.

The Kittitas Reclamation District has released, pursuant to the foregoing contract, as amended, to the United States 20,000 acre-feet of water in the months of April, May and June, and 10,000 acre-feet of water during the months of July, August, September and October from its water supply provided for in said contract, as amended, such water to be sold by the United States to the following irrigation districts in the amounts set opposite the respective districts:

| | |
|---|---|
| Yakima-Tieton Irrigation District | 18,000 acre-feet |
| Granger Irrigation District | 1,800 acre-feet |
| Outlook Irrigation District | 4,500 acre-feet |
| Grandview Irrigation District | 3,000 acre-feet |
| Prosser Irrigation District | 2,500 acre-feet |
| Zillah Irrigation District | 200 acre-feet |

7. ROZA DIVISION *(Roza Irrigation District)*.—The United States shall deliver to the District, pursuant to a contract dated July 8, 1921, between the United States and the Yakima-Benton Irrigation District (now Roza Irrigation District), as amended by the contract of April 15, 1935, at a point opposite the headworks of the District located in Section twenty-eight (28), Township fifteen (15) North, Range nineteen (19) East, W.M. 375,000 acre-feet of water measured at or near said diversion works for use upon lands within the boundaries of the District. The annual irrigation season for the delivery of water shall be from April 1 to October 31, inclusive; and the mean monthly supply of water shall not exceed the following schedule of percentages of the total annual diversion as hereinafter set forth.

| | |
|---|---|
| During April | 10% |
| During May | 15% |
| During June | 19% |
| During July | 19% |
| During August | 19% |
| During September | 12% |
| During October | 6% |

The foregoing obligation of the United States to deliver water is subject to the conditions and limitations set forth in said contracts.

8. SELAH & MOXEE IRRIGATION DISTRICT.—The predecessor in interest of the Selah & Moxee Irrigation District, in accordance with the instrument known as a limiting agreement, executed January 25, 1906, recorded March 12, 1906, in Volume 41 of Deeds at page 416 of the records of Yakima County, Washington, limited its rights in the natural flow of the Yakima River as follows:

| April to August, inclusive | September | October |
|---|---|---|
| 78 c.f.s. | 60 c.f.s. | 40 c.f.s. |

Such rights have been recognized by the United States in a contract dated November 15, 1920, between the District and the United States.

The United States shall deliver to the District, in accordance with the foregoing contract, 3,000 acre-feet of water at a point opposite the headworks of the District on the Yakima River which headworks are located in Section seventeen (17), Township fourteen (14) North, Range nineteen (19) East, Willamette Meridian, the water to be delivered as nearly as practicable in compliance with the orders of the District.

The United States shall deliver annually to the District, pursuant to its contract dated April 30, 1931, with the District, in addition to the water supply provided for in said contract of November 15, 1920, 1757 acre-feet of water at the head of the Selah-Moxee ditch. The annual irrigation season for the delivery of water under said contract dated April 30, 1931, shall be from

April 1 to September 30, inclusive, each year and the mean monthly supply of water to be delivered under said contract of April 30, 1931, shall not exceed the following schedule of percentages of the total annual diversion:

| Month | Per Cent | Acre-feet Total of Contract |
|---|---|---|
| April | 10 | 175.70 |
| May | 16 | 281.12 |
| June | 19 | 333.83 |
| July | 21 | 368.97 |
| August | 20 | 351.40 |
| September | 14 | 245.98 |
| | 100 | 1,757.00 |

The foregoing obligation of the United States to deliver water is subject to the conditions and limitations set forth in said contracts. The foregoing obligation of the United States to deliver water also is subject to an agreement dated October 27, 1939, between the Selah & Moxee Irrigation District and Terrace Heights Irrigation District, under the terms of which the Selah & Moxee Irrigation District transferred for the use of lands in the Terrace Heights Irrigation District one-tenth of the foregoing amounts. By reason thereof, the obligation of the United States to deliver the foregoing amounts is reduced by one-tenth.

9. WEST SIDE IRRIGATING COMPANY.—The West Side Irrigating Company, in accordance with the instrument which it executed October 21, 1905, known as a limiting agreement, which instrument was recorded on the 14th day of March, 1906 in Book 2 of Water Rights at page 315 of the records of Kittitas County, Washington, limited its water rights in the natural flow of the Yakima River to 80 c.f.s. during the months of April to September, inclusive, and 34 c.f.s. during the month of October of each year. These rights were recognized by the United States in its contract of August 1, 1922, with said Company.

The United States, in accordance with the said contract of August 1, 1922, in addition, shall deliver to the Company 25 c.f.s. from April 20 to September 30, inclusive, provided that the total quantity of such water be limited to 8,200 acre-feet. The water

shall be measured at a point in the canal known as the millpond wasteway and flume, located in the Southeast Quarter of the Southeast Quarter (SE¼ SE¼) of Section Three (3), Township Eighteen (18) North, Range Seventeen (17) East of the Willamette Meridian.

The foregoing obligation of the United States to deliver water is subject to the conditions and limitations set forth in said contract.

10. UNION GAP IRRIGATION DISTRICT.—The Union Gap Irrigation Company and the Fowler Ditch Company, predecessor in interest of the Union Gap Irrigation District, to which reference is hereafter made, in accordance with the instrument which they executed on November 25, 1905, known as a limiting agreement, limited their water rights in the natural flow of the Yakima River as follows:

| | |
|---|---|
| April to August, inclusive ..... | 23 c.f.s. |
| September ..... | 16 c.f.s. |
| October ..... | 12 c.f.s. |

These rights were recognized by the United States in its contract of May 23, 1906, with the Union Gap Irrigation Company.

The United States shall deliver, pursuant to the said contract of May 23, 1906, during the months from April to August, both inclusive, 28 c.f.s., during the month of September, 19 c.f.s., and during the month of October, 14 c.f.s. During the months from November to March both inclusive the United States in accordance with the contract shall deliver a reasonable amount of water for stock purposes. All water covered by the contract of May 23, 1906, shall be diverted and measured at the intake of the Fowler ditch.

In addition, the United States shall deliver to the Union Gap Irrigation District, successor in interest of the Fowler Ditch Company, pursuant to its contract with the District dated March 2, 1915, 4222 acre-feet of water at the headworks of the District located approximately 950 feet west and 650 feet north of the southeast corner of Section seven (7), Township thirteen (13) North Range nineteen (19) East, W.M. The annual irrigation

season for the delivery of water under the contract shall be from April 1 to October 31, inclusive, and the monthly supply of water furnished under said contract of March 2, 1915, shall not exceed the following schedule of deliveries:

| | |
|---|---|
| During April | 534 acre-feet |
| During May | 675 acre-feet |
| During June | 712 acre-feet |
| During July | 737 acre-feet |
| During August | 797 acre-feet |
| During September | 534 acre-feet |
| During October | 233 acre-feet |
| | 4,222 |

The maximum flow for any one month to be 13 c.f.s.

The foregoing obligation of the United States to deliver water is subject to the conditions and limitations set forth in said contracts.

11. BROADWAY IRRIGATION COMPANY.—The United States shall deliver to the Broadway Irrigation Company 700 acre-feet from the natural flow water available in Wide Hollow Creek pursuant to its contract with the Company dated December 1, 1921, and shall deliver said water at a point opposite the Company's headworks located 600 feet west of the east quarter corner of Section thirty-five (35), Township thirteen (13) North, Range eighteen (18) East of the W.M. The annual irrigation season shall be from April 1 to October 31, inclusive, and the monthly supply of water shall not exceed the following schedule of percentage of the total annual diversion as hereinafter set forth:

| | | | |
|---|---|---|---|
| During April | 10% | - 70 | acre-feet |
| During May | 15 | - 105 | acre-feet |
| During June | 19 | - 133 | acre-feet |
| During July | 19 | - 133 | acre-feet |
| During August | 19 | - 133 | acre-feet |
| During September | 12 | - 84 | acre-feet |
| During October | 6 | - 42 | acre-feet |
| Total | | 700 | |

The quantity of water to be delivered shall be limited to that which is available in Wide Hollow Creek.

The foregoing obligation of the United States to deliver water is subject to the conditions and limitations set forth in said contract.

12. CASCADE IRRIGATION DISTRICT.—The Cascade Canal company, in accordance with an instrument known as a limiting agreement which it executed December 12, 1906, limited its rights in the natural flow of the Yakima River to 150 c.f.s. from the period from March 15, to July 20: from July 20 to October 15 such rights are limited in accordance with the storage contract referred to in the succeeding paragraph, and from October 15 to March 15 to 30 c.f.s. for stock purposes. Such rights have been recognized by the United States in a contract dated December 12, 1906, between the District and the United States. All of the rights of the Cascade Canal Company were transferred to and are now owned by the Cascade Irrigation District.

The United States shall deliver to the Irrigation District pursuant to the contract of December 12, 1906, a total of 16,800 acre-feet of water between July 20 and October 15 of each year, delivery of water to be at points higher on the river than the headgate of said District located in the Northwest Quarter (NW¼) of Section twenty-eight (28), Township nineteen (19) North, Range seventeen (17) East, W.M., and the water to be measured at a point on said canal below and within 100 feet of a certain wasteway from said canal in Section thirty-four (34), Township nineteen (19) North, Range seventeen (17) East, W.M. At no time under said contract shall the District require a flow in excess of 150 c.f.s. of time.

The foregoing obligation of the United States to deliver water is subject to the conditions and limitations set forth in said contract.

13. TERRACE HEIGHTS IRRIGATION DISTRICT.—The United States shall, in accordance with its contract of February 10, 1940, with the Terrace Heights Irrigation District, which supplemented the contract of March 24, 1931, deliver annually a maximum of 3,259.5 acre-feet of water per annum, measured at or near the points of diversion in the main Roza Canal, the maximum not (sic) deliveries at the points of

delivery, after the deduction of 10% for evaporation and seepage losses, to be made in accordance with the following monthly schedule:

| Month | Total Acre-feet | Second Feet |
|---|---|---|
| April | 416.1 | 6.99 |
| May | 483.8 | 7.87 |
| June | 501.5 | 8.43 |
| July | 531.2 | 8.64 |
| August | 521.6 | 8.48 |
| September | 357.7 | 6.01 |
| October | 121.7 | 1.98 |
| Total | 2,933.6 | |

The foregoing obligation of the United States to deliver water is subject to the conditions and limitations of said contract.

14. MOXEE DITCH COMPANY, SUB-A.—The Moxee Company, in accordance with an instrument known as a limiting agreement which it executed October 24, 1905, limited its rights to divert water from the Yakima River as follows:

| April to August inclusive | September | October |
|---|---|---|
| 38 c.f.s. | 29 c.f.s. | 22 c.f.s. |

The rights so limited were later divided between the Moxee Ditch Company and the Hubbard Ditch Company as follows:

*Moxee Ditch Company*

| | |
|---|---|
| April to August, inclusive | 11 c.f.s. |
| September | 8.4 c.f.s. |
| October | 6.4 c.f.s. |

*Hubbard Ditch Company*

| | |
|---|---|
| April to August, inclusive | 27 c.f.s. |
| September | 20.6 c.f.s. |
| October | 15.6 c.f.s. |

Such rights have been recognized by the United States in its contract with the Moxee Ditch Company, Sub-A, dated June 27, 1929.

The United States shall deliver annually to the Moxee Ditch Company, Sub-A, 959.4 acre-feet of water at the head of the Moxee or Hubbard Ditch in accordance with said contract of June 27, 1929. The annual irrigation season for the delivery of water shall be from April 1 to October 31, inclusive, each year and the mean monthly supply of water furnished under the contract shall not exceed the following schedule of percentages of the total annual diversion:

| | |
|---|---|
| April | 9% |
| May | 15 |
| June | 19 |
| July | 19 |
| August | 19 |
| September | 13 |
| October | 6 |

The foregoing obligation of the United States to deliver water is subject to the conditions and limitations set forth in said contract.

15. NACHEE-SELAH IRRIGATION DISTRICT.—The predecessor in interest of the Nachee-Selah Irrigation District, in accordance with the instrument executed December 21, 1905, known as a limiting agreement, limited its rights in the Yakima River during the months of April to September, inclusive, to 105 c.f.s., and 100 c.f.s. during the month of October, said limiting agreement having been recorded March 12, 1906, in Vol. 41 of Deeds, page 420, Records of Yakima County, Washington. Subsequent to execution of the limiting agreement, the predecessor in interest of the District acquired through conveyances certain additional water, and the United States by a contract dated April 6, 1920, with the Naches-Selah Irrigation District recognized in the District the following rights or such part thereof as may be available in the natural flow of the Yakima River:

| | April to August | September | October |
|---|---|---|---|
| Limiting agreement water | 105 c.f.s. | 105 c.f.s. | 100 c.f.s. |
| Additional water | 11.77 c.f.s. | 8.51 c.f.s. | 6.91 c.f.s. |
| Totals | 116.77 c.f.s. | 113.51 c.f.s. | 106.91 c.f.s. |

In addition to the above mentioned water the Naches-Selah Irrigation District subsequent to the execution of said agreements purchased and acquired an additional water right of 2 c.f.s., which has been diverted through the canal of said District and used upon lands therein.

The United States shall deliver annually to the District in accordance with its contract of April 6, 1920, from April 1 to August 31, inclusive, a supply of "supplemental water" to be delivered in amounts not to exceed the following schedule of deliveries:

| | |
|---|---|
| During April | 674 acre-feet |
| During May | 811 acre-feet |
| During June | 901 acre-feet |
| During July | 1050 acre-feet |
| During August | 1050 acre-feet |
| Total | 4486 acre-feet |

The maximum rate of flow for such supplemental water shall not exceed 17.1 c.f.s. and shall be delivered at a point opposite the headworks of the District on the Naches River in the Southwest Quarter (SW¼), Northwest Quarter (NW¼), section thirty-five (35), Township fifteen (15) North, Range sixteen (16) East, W.M.

The foregoing obligation of the United States to deliver water is subject to the conditions and limitations set forth in said contracts.

16. YAKIMA VALLEY CANAL COMPANY.—The Yakima Valley Canal Company, in accordance with the instrument which it executed January 8, 1906, known as a limiting agreement, which was recorded March 12, 1906, in Vol. 41 of Deeds at page 397, Yakima County, Washington, limited its water rights to 62½ c.f.s. during the months of April to August, inclusive, 40 c.f.s. during the month of September, and 30 c.f.s. during the month of October of each year. Subsequent to the limiting agreement the Company acquired certain additional water rights, purported to be 1½ c.f.s. by a conveyance recorded in Vol. 146 of Deeds, page 566 of the Yakima County records.

The United States by its contract with the Yakima Valley Canal Company, dated June 2, 1920, recognized in the Company the following rights or such part thereof as may be available from the natural flow of the Yakima River:

| | April to August (both inclusive) | September | October |
|---|---|---|---|
| Limiting agreement water | 62.5 c.f.s. | 40 c.f.s. | 30 c.f.s. |
| Transferred Water ..... | 1.5 c.f.s. | 1.5 c.f.s. | 0.75 c.f.s. |
| | 64 c.f.s. | 41.5 c.f.s. | 30.75 c.f.s. |

The United States shall deliver to the Company each year, in accordance with the contract of June 2, 1920, 4300 acre-feet of storage water. Delivery of such water shall be made at a point opposite the headworks of the Company on the Naches River in the Northwest Quarter (NW¼) of Section twenty-five (25), Township fourteen (14) North, Range seventeen (17) East, W.M.

The foregoing obligation of the United States to deliver water is subject to the conditions and limitations of said contracts.

17. The United States shall continue to divert available flood water from the Yakima River and its tributaries in accordance with its practice prior to the entry of this judgment, and the quantities of such water which the parties to this judgment are entitled to receive shall be over and above the schedules of diversion hereinabove set forth. Within the meaning of this judgment, flood water is available for such diversions when, as determined by the Yakima Project superintendent, there is flowing over the Sunnyside dam flood water in excess of the amount he deems necessary for proper river regulation, including in said amount the amount necessary to protect fish life in the river below said dam. The determinations by the Yakima Project Superintendent as to whether flood water is available for such diversions shall be binding upon the parties hereto, subject to review by the court. The United States, or its successor in the operation of the Sunnyside Canal, shall deliver at the points of delivery in said Canal, as above set forth, the pro rata shares of the Sunnyside

Valley, Prosser, Snipes Mountain, Grandview, Zillah, Granger, Outlook and Sunnyside Irrigation Districts of said flood waters.

18. The parties to this judgment, except as provided in paragraph 19 hereof, shall have equal rights with respect to the priority in the delivery of the quantities of water to which they are entitled under the preceding paragraphs of this judgment. If for any cause it is impossible to supply fully these quantities, the water subject to proration to which each party to this judgment is entitled shall be proportionately diminished. The pro rata share of that water which each of the parties to this judgment shall receive during a period of insufficient supply shall be an amount in the same proportion to the quantity of water subject to proration that each of the parties is entitled to under this judgment as the total water supply available, as hereinafter defined, less the summation of the rights recognized in paragraph 19 bears to the aggregate of the following quantities of water: Those quantities of water provided for in this judgment which are subject to proration, and those quantities subject to proration which the United States has contracted to deliver to water users not parties to this judgment; provided, however, that during the period of development of the Rosa (sic) Division the amount of water to be included for that Division in the foregoing aggregate shall be the amount diverted for the irrigated lands of that Division in a normal year, plus estimated losses from the point of diversion to the place of delivery, rather than the amount recognized in paragraph 7 of this judgment; and provided further that, during the period of development of the Roza Division, in computing the pro rata share of water which the Roza Division will be entitled to receive in a period of insufficient supply there will be used that quantity of water diverted for the Roza Division in a normal year plus estimated losses, rather than the quantity recognized for that Division in paragraph 7 of this judgment.

For the purpose of this judgment "total water supply available" is defined as that amount of water available in any year from natural flow of the Yakima River, and its tributaries, from storage in the various Government reservoirs on the Yakima watershed and from other sources, to supply the contract obligations of the United States to deliver water and to supply claimed rights to the

use of water on the Yakima River, and its tributaries, heretofore recognized by the United States.

19. The following amounts of water are excepted from the preceding paragraph with respect to proration, and the summation of said amounts shall be deducted from the "total water supply available" subject to proration:

(1) 720 c.f.s. of water for the use on lands within the Wapato Indian Irrigation Project provided for by the Act of August 1, 1914 (38 Stat. 604), which amount shall constitute the limit of the water rights of the said Project not subject to proration.

(2) 250 c.f.s. of water during the months of May, June, July, August, and September of the amount heretofore recognized in this judgment for the use on lands within the Tieton Division, which amount shall constitute the limit of the water rights of said Division not subject to proration.

(3) 700 c.f.s. of water during the months of April, May, June, July, August, September, and the first 20 days of October, of the amount heretofore recognized in this judgment for the use on lands within the Sunnyside Valley Irrigation District, which amount shall constitute the limit of the water rights of said District not subject to proration, except as to those lands within the Sunnyside Valley Irrigation District which are covered by sub-paragraph 6 hereof. Provided, however, that not exceeding 50 c.f.s. of said amount may be measured daily by the Bureau of Reclamation from return flow of the Roza Division into the Sunnyside Canal. The amounts so excepted from proration shall be for the benefit of all lands within the Sunnyside Valley Irrigation District, subject to classification of lands by the Board of Directors of the District.

(4) 35 c.f.s. of water for the use on the so-called Kennewick lands, served from the Sunnyside Canal, which amount shall constitute the limit of the water rights for said lands not subject to proration.

(5) 26 c.f.s. of water, for the use on Piety Flat lands, in accordance with the contract of May 1, 1914, between the United States and Piety Flat Ditch Company, served from the Sunnyside Canal, which amount shall constitute the limit of the water rights for said lands not subject to proration.

(6) 25 c.f.s. of water, in accordance with the contract of September 24, 1910, between the United States and Prosser Falls Land and Power Company, served from Sunnyside Canal, which is the limit of this right not subject to proration.

(7) 5 c.f.s. of water, in accordance with the contract between the United States and the Town of Prosser, dated May 3, 1911, served from the Sunnyside Canal, which is the limit of this right not subject to proration.

In addition to the amounts herein set forth which shall be excepted from paragraph 18 with respect to proration, there also shall be excepted from paragraph 18 the rights of Cascade Irrigation District which are recognized in paragraph 12, and the amounts claimed by other water users of natural flow rights from the Yakima River and its tributaries, which have heretofore been recognized by the United States whether or not such users are parties to this action, and the summation of said amounts shall also be deducted from the total water supply available subject to proration. Exception from proration of such amounts specified in the preceding sentence from the total water supply available does not constitute a determination of the quantum or priority of such claimed rights, and is without prejudice to any of the parties to this action.

20. This judgment shall constitute a final determination of the obligation of the United States to deliver water from the Yakima River, and its tributaries, from storage from its various reservoirs in the Yakima watershed and from other sources to the parties to this judgment and the lands within the Wapato Indian Irrigation Project. Each of the parties to this cause, their grantees, successors and assigns are by this judgment forever enjoined and restrained from asserting any claim to or from interfering with any of the rights to the use or the delivery of those quantities of water which are recognized in this judgment. This judgment shall not,

however, be construed as limiting or in any way interfering with the transfer or legal succession of any of those rights. The rights of any claimants to water of the Yakima River or watershed who are not parties to this cause shall in no way be prejudiced or affected by this judgment nor will it in any way prejudice or affect the rights of the parties to this judgment as they may pertain to the rights of such claimants. This judgment shall be binding upon and inure to the benefit of the grantees, assigns or successors of the parties hereto. The several parties to this suit shall pay their own costs in this action.

The court, in its discretion, may appoint a watermaster, who shall be vested with such authority as the Court deems appropriate in the administration of the water rights, subject to the provisions of this judgment. This Court shall retain jurisdiction over matters of interpretation of this judgment and matters relating to the administration thereof.

Done in open court this 31 day of January, 1945.

L. B. SCHWELLENBACH

Judge

In the District Court of the United States
For the Eastern District of Washington
Southern Division

Civil No. 21

Kittitas Reclamation District, et al.,
Plaintiffs,
v.
Sunnyside Valley Irrigation District, et al.,
Defendants.

## CONSENT TO JOINDER OF NEW DEFENDANT

We, the undersigned duly qualified officers of the Cascade Irrigation District, do hereby signify our consent to joinder of the Cascade Irrigation District as a co-defendant in the above entitled action, and to entry of Judgment thereon against all the defendants, and including the Cascade Irrigation District, as agreed by our counsel Short and Short, Attorneys at law.

Leslie Wilson
Director

Guy F. Murchland
Director

Earl E. Anderson
Director

Approved by:

SHORT & SHORT by B. P. Short
Attorneys for Cascade Irrigation District

In the District Court of the United States
For the Eastern District of Washington
Southern Division

Civil No. 21

Kittitas Reclamation District, et al.,
Plaintiffs,

v.

Sunnyside Valley Irrigation District, et al.
Defendants.

## MOTION FOR ORDER FOR JOINDER OF NEW DEFENDANT

Comes now the United States of America by its duly appointed, qualified and Acting United States Attorney for the Eastern District of Washington, Edward M. Connelly, and respectfully moves the Court for an order joining Cascade Irrigation District as party defendant in the above-entitled action.

The motion is based upon all of the records and files in the above-entitled proceeding and upon the written consent to said joinder executed by the duly authorized directors of said Cascade Irrigation District, which consent is on file and of record herein, and by this reference made a part hereof.

(Sd) EDWARD M. CONNELLY
United States Attorney

In the District Court of the United States
for the Eastern District of Washington
Southern Division
Civil No. 21
Kittitas Reclamation District, et al.,
Plaintiffs,
v.
Sunnyside Valley Irrigation District, et al.
Defendants.

## ORDER FOR JOINDER OF NEW DEFENDANT

The above-entitled matter coming on regularly for hearing this 31st day of January, 1945, upon the motion of United States of America made by and through its duly appointed, qualified and acting United States Attorney for the Eastern District of Washington, Edward M. Connelly, for an order joining Cascade Irrigation District as a party defendant in the above-entitled proceeding, and it appearing to the Court that the Cascade Irrigation District consents to being joined as party defendant in the above-entitled action by virtue of a written consent executed by Leslie Wilson, Guy F. Murchland and Earl E. Anderson, its duly elected and qualified directors, which said consent is approved by Short and Short, its attorneys, and the Court being otherwise fully advised in the premises; now, therefore,

IT IS ORDERED that Cascade Irrigation District be, and it hereby is, made a party defendant in the above-entitled proceeding.

DONE in open Court this 31st day of January, 1945.

(Sd) L. B. Schwellenbach
United States District Judge

PRESENTED BY:
EDWARD M. CONNELLY
United States Attorney

**Appendix G**

Bryan G. Evenson
Halverson & Applegate, P.S.
311 North First Street
P.O. Box 526
Yakima, Washington 98907
Telephone No.: (509) 575-6611

Burton J. Goldstein
Memel, Jacobs, Pierno, Gersh & Ellsworth
The Hartford Building, 33rd Floor
San Francisco, CA 94108
Telephone No.: (415) 433-3000

Attorneys for Plaintiffs

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United States District Court
Eastern District of Washington

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Civil No. 82 064 JLQ

---

Elbert B. Schinmann and Teddie Schinmann,
Plaintiffs,

vs.

United States of America,
Defendant.

---

Civil No. 82 093 JLQ

---

H. F. Allen Orchards, Inc., et al.,
Plaintiffs,

vs.

United States of America,
Defendant.

Affidavit of John A. Dracup
In Opposition to Plaintiffs' Motion for Summary Judgment

State of California
County of San Francisco } ss.:

COMES NOW JOHN A DRACUP, being first duly sworn on oath, deposes and states as follows:

1. Your affiant's name is John A. Dracup. I make this Affidavit in opposition to the Motion for Summary Judgment filed by the United States in the above-captioned action.

2. I am a Professor of Engineering and Applied Science in the Civil Engineering Department at the School of Engineering and Applied Sciences at the University of California, Los Angeles. I have received a Bachelor of Science Degree from the University of Washington, Seattle, in 1956, a Master of Science Degree from the Massachusetts Institute of Technology, Cambridge, Massachusetts in 1960, and a Ph.D. from the University of California, Berkeley in June of 1966. I have specific expertise in water resource engineering including computation of water supplies and in surface water hydrology. A summary of my education, university service, registration and licenses, membership in scholarly or professional societies, editorial services, consulting activitites, honors and special recognition, professional experience, teaching experience, and publications is set forth in a curriculum vitae which is attached hereto as Exhibit "A" and expressly incorporated herein by this reference.

3. I have been retained by the plaintiffs in the above-captioned action to offer expert testimony regarding the computation by the Bureau of Reclamation of the water supply available for irrigation in 1977.

4. That I have consulted a number of documents and informational sources for the facts upon which my opinion is based in addition to my general training and education outlined above. I am familiar with the facts and circumstances surrounding the erroneous computation of the water supply available for irrigation by the Bureau of Reclamation and the Yakima Project during 1977.

5. I have reviewed numerous documents produced in the related Claims Court action, H.F. Allen Orchards, et al. v. The United States, No. 113-80C. These documents include but are not limited to the following:

Deposition of Gray

Deposition of Perala

Deposition of Yribar

Deposition of Taylor

Deposition of Allen

Deposition of Vissia

Deposition of Vinsonhaller

The "Vissia Report" dated June, 1977 (Exhibit 8 to Gray deposition)

Letter of Willian Gray to Regional Headquarters, Bureau of Reclamation, dated June 17, 1977.

Vissia Deposition Exhibit No. 2.

Various computer printouts of the Bureau of Reclamation office showing historical river flows and precipitation attached as Exhibit 13 to the Perala deposition.

The 1945 Consent Decree in Kittitas Reclamation District, et al. v. Sunnyside Valley Irrigation District, et al., District Court of the United States for the Eastern District of Washington, Southern Division, Civil Action No. 21, Exhibit K22 to Gray deposition.

Affidavit of Willian Gray, dated August 17, 1982.

Affidavit of Onni Perala, dated August 18, 1982.

Affidavit of Dan Yribar, dated August 23, 1982.

Lentz Report, Gray Deposition, Exhibit 6.

I have also reviewed the affidavits of Gray, Perala, and Yribar which have been submitted in support of the motion for summary judgment which has been filed in this District Court Federal Tort Claim action.

6. I have also reviewed water resource data for Washington State, 1976-1979 published by the U.S. Geological Survey. I have also reviewed the Washington State 1977 drought studies. This

information is readily obtainable by experts in the field of hydrology and water supply computation and is reasonably and commonly relied on by experts in this field in forming opinions or inferences on the subject.

7. Additionally, during the summer of 1983, I visited the Yakima Valley and viewed portions of the Yakima Project including the dams and diversions at Bumping Lake, the Roza Diversion Dam in the Yakima River in the Yakima Canyon, the dams and diversions at Lake Kachess and Kechalus and portions of the Sunnyside Valley Irrigation System and the Roza Irrigation Project, the Sunnyside Dam at Parker, Washington and the Yakima River system in general.

8. That based on the review of the facts outlined above and my training and experience in general, I am of the opinion that the computations of the Bureau of Reclamation employees and officials during the 1977 irrigation year through May of 1977 were erroneous and that said computations were performed negligently. I will set forth below several specific errors and the reasons for my opinion.

9. The 1945 Consent Decree in the case of *KRD v. SVID*, Civil 21 sets forth a three factor formula for the computation of a total water supply available (hereafter "TWSA") for distribution under the decree. That document states that such a water supply is to be made up of the natural flow of the Yakima River and its tributaries, water held in storage in reservoirs, and water from "other sources". These components are not unique to computation of a water supply available for irrigation under the Consent Decree, but would be used by competent hyrologists and water resource engineers in any computation of an irrigation water supply.

Any accurate computation of total water supply available for irrigation purposes must include these factors, whether or not it is specifically based on the Consent Decree. The "natural flow" as used in the Consent Decree is also commonly referred to in hydrology and water management science as "virgin flow" or "unimpaired flow". "Natural flow" is defined as river flow which has no upstream diversions, regulations, or storages. The Consent

Decree reference to storage water is commonly referred to as "carry over storage". This is water from precipitation and surface water runoff in the previous hydrological year which has been held in reservoirs by dams. The term "other source" in the Consent Decree is "return flow". "Return flow" is water which is part of the virgin flow of a river or tributary which has been once diverted for irrigation purposes, and then has returned to the river system as drainage from excess irrigation and is thus available for additional downstream diversions for reuse in irrigation. Any accurate computation of the water supply available for irrigation must include return flow, whether or not it is based on the Consent Decree.

10. In depositions in the related case of *H. F. Allen Orchards v. U.S.*, United States Claims Court No. 113-80C, various Bureau of Reclamation employees and hydrologists including Gray, Yribar and Perala testified as to internal disagreements as to the function and quantification of return flow in an irrigation water supply computation. According to this testimony, the Yakima and Boise offices of the Bureau of Reclamation argued as to whether or not the return flow was included in a runoff measurement. Eventually, the Bureau of Reclamation adopted a view that much or all of the return flow in the 1977 computation was already included in their runoff measurements and that therefore, return flow need not be separately added to the runoff measurement and storage water available for computation of the water supply available for irrigation in 1977. (See Perala Deposition, Vol. I, pp. 38-43, 55-57; Gray Affidavit, pp. 17-18). Also, in Affidavits filed by Perala and Yribar in the District Court Federal Tort Claim action, it is claimed that because return flows result from diversions, they were accounted for in runoff measurement figures. (See for example, Perala District Court Affidavit at pp. 11-12).)

11. The Claims Court depositions and affidavits and the District Court affidavits of Bureau employees, particularly, those of Perala and Yribar, show consistent confusion between several different terms and concepts of irrigation water supply computations, which resulted in a faulty TWSA computation in February, 1977. For example, in Perala's Affidavit filed in the District Court Action at p. 4, "runoff" is defined merely as "flowing surface

water". The Perala definition does not distinguish the source or composition of the so called "runoff". Therefore, according to Perala's definition, "runoff" could include the present year's precipitation runoff (properly called "natural flow" in the Consent Decree, and also referred to in hydrology as "virgin flow" or "unimpaired flow"), or last year's storage releases, or both, in any combination. The Perala definition could also include return flow initially consisting of either such natural flow or storage releases which had been diverted for irrigation purposes and returned to the river system for further diversion. Thus, depending on the point at which "runoff" pursuant to this definition was measured or computed, it could include or not include such storage waters or natural flows or both. This can lead to erroneous results in the Bureau's TWSA computation if "runoff" under this faulty and ambiguous definition is compared or added to other "runoff" measurements at different points above and below irrigation improvements, reservoirs or diversions.

Similarly, in Perala's District Court Affidavit at page 15, Perala quotes an office memorandum, February 8, 1977, William G. Gray, Water Management Situation—Yakima Project—1977, appearing at Document 11 of the Appendix to the Brief of the United States in this District Court case. Item No. 2 of this February forecast of TWSA is in the Perala Affidavit captioned "Expected Runoff including return flow." However, a review of the actual document shows that in fact Item No. 2 actually says "Expected Natural Flow", and omits any reference to return flow.

The 1945 Consent Decree and its three-factor formula for the TWSA computation does not in fact speak of "runoff". Rather, it uses two separate terms: "natural flow" and "other sources" which means return flow.

12. In an *accurate* computation of a water supply available for irrigation purposes, return flow must be treated as a separate factor and added to natural or virgin flow and carry over storage. This is because return flow is water which originates as natural flow or precipitation which has been diverted once for irrigation, but which has returned to the river system for a second of third, etc. subsequent downstream diversion and is thus reused possibly numerous times. Therefore, in an irrigation water supply compu-

tation, return flow must be separately added as a "double entry" or in effect as an artificial tributary to the river system.

13. Historically, actual measurement of the flow of water in a river to be used for irrigation purposes, as opposed to future supply computations, may, at any point in time, include measurement of water which has been released from storage reservoirs filled from the previous year's runoff (i.e. carry over storage) and/or water which has fallen in the current year and is thus part of the river's natural flow or virgin flow and/or water from either of these two sources which had already been diverted upstream for irrigation and returned to the river, i.e. return flow. Therefore, when a hydrologist or water resource engineer is making a computation early in the irrigation year of the water supply available for irrigation, he must realize that the water available includes the potential snow melt runoff (natural runoff) plus releases from carry over storage plus downstream return flows. These return flows are cumulative as one progresses down the river. Therefore, in failing to separately add return flow as an independent factor to its pre-May 1977 water supply computations and in assuming its runoff measurements included return flow, the Bureau of Reclamation employees failed to act as reasonable and prudent hydrologists and water managers and were thus negligent.

14. I disagree with Perala's conclusion that because return flows result from diversions they are "accounted for" in run off figures. See Affidavits of Perala, p. 11, lines 16-19, filed in the District Court Federal Tort Claim action. This statement is irrelevant to the accuracy of an irrigation water supply computation. Perala's definition of "run off" includes all surface waters from whatever sources. Therefore, under this definition, "run off" would also include that portion of the surface water which has originally entered the river system as storage release or precipitation, and after irrigation diversion, returns to the system for reuse. However, even in this sense, return flow must still always be separately added as an independent component in an irrigation supply availability computation as admitted in the Affidavits of Perala and Yribar filed both in the Claims Court and District Court. If the Bureau hydrologists had based their computations

upon "natural flow" as required both by the Consent Decree and by recognized principles by hydrology and water resource management, instead of "run off" as defined by Perala, they would not have made the return flow error. Because "natural flow" is limited only to a river flow without irrigation dams, diversions, reservoirs or other improvements, it cannot by definition include return flow, which can result only from such irrigation effects.

15. Because return flow must be added separately to an irrigation water supply computation as set forth above, the total water supply available for will always exceed the combined total of the natural flow or virgin flow and the carry over storage. To illustrate this, I have prepared a schematic diagram of a hypothetical, simplified river and irrigation system which is attached to this Affidavit as Exhibit "B" and expressly incorporated herein by this reference. Pursuant to this diagram, we have unimpaired natural runoff as measured by a stream gage at Point 1 on the diagram. This would flow into the triangular reservoir storage. The schematic diagram presumes a reservoir release into the river system which, measured at Point 2, would be 1,000 cfs. At Point 3, 500 cfs. of the release is diverted for irrigation. Therefore, further downstream at Point 4, a stream gage would measure only 500 cfs. The diagram assumes that 250 cfs. of the 500 cfs. diversion would be lost in irrigation due to seepage losses and evaporation and transpiration of the crops. However, there is return flow back to the river system at Point 5 of 250 cfs. (i.e. 50% of diversion). Therefore, when this return flow is combined at measurement Point 5 with the 500 cfs. remaining in the river channel after the upstream diversion at Point 3 a stream gage at Point 6 would measure 750 cfs. Therefore, the amount of water available for downstream irrigation at Point 6 is not the reservoir release minus the irrigation diversion ($1,000 - 500 = 500$) but is the reservoir release minus the irrigation diversion plus the return flow ($1,000 - 500 + 250 = 750$). Furthermore the initial computations of the amount of water available for all downstream diversion is not 1,000 cfs. It is actually 1,250 cfs. because 250 cfs. will be return flow and thus must be figured as a "double entry" or as, in effect, an artificial downstream tributary. An actual measurement at Point 2 of 1,000 cfs. would not include the 250 cfs. of that 1,000 cfs. which will be returning for further diversion

downstream at Point 5. Therefore, if a hydrologist is computing the water supply available for irrigation in such an irrigation system, as opposed to merely taking a historical measurement of the actual flow in the river at any point, the 250 cfs. must be separately added.

16. At p. 12 of his District Court Affidavit, Gray indicates that the Bureau's adoptive runoff measurement was based on a projection of a continuation of one-third normal precipitation which had been experienced through the fall and early winter. If the Bureau's initial runoff projection of 1,077,000 acre feet at Parker gage (see Table 5 at p. 15 of Vissia Report, No. 27 of Defendants' Exhibit) is multiplied by one-third, the product is 359,000 acre feet. This, therefore was apparently the method by which the Bureau computed its adoptive runoff figure of 360,000 acre feet which it used in its February TWSA computation. However, there is no scientific basis to equate precipitation rates to runoff or natural flow. The assumption that a one-third reduction of precipitation results in a one-third reduction in runoff or natural flow is absurd.

17. In their District Court Affidavits, both Perala and Yribar imply that because 1977 was a dryer than normal year, they were unable to "quantify" the amount of return flow which would occur because they had no prior data on the capacity of the basin to absorb irrigation water under dry conditions. However, this lack of empirical data should not have effected their ability to accurately employ return flow in their irrigation water supply computation either under the 1945 Consent Decree or pursuant to recognized standards of hydrology and water resource management. As the affiants themselves admit in their District Court Affidavits, they failed to understand that in an irrigation water supply computation as opposed to a flood control computation, return flow must be, in their words, a "double entry". This failure to understand the role of return flow in an irrigation water supply computation insured that their computations would be conceptually radically flawed regardless of what empirical data they used. The alleged lack of such data until the discovery of their computation errors in mid-May of 1977 at most, presented a difficulty in discovery of their underlying conceptual error. How-

ever, as stated above, a water supply computation for irrigation purposes either under the 1945 Consent Decree, or for any irrigation purpose must always add return flow as a separate factor or, in effect, as a "double entry."

18. The Bureau's 1977 irrigation water supply computation was also improper in that it ignored the Bureau's own precipitation measurement which was based upon actual snow pack data and historical natural flow computations for a so called "adoptive" runoff measurement which was drastically lower by an order of three-fold. Their failure to employ any scientific formula or devise in the adoption of this runoff computation did not meet the standard of care of ordinary reasonable and prudent hydrologist or water resource engineer.

19. The Bureau also violated standards of care of reasonable and prudent hydrologists and water resource engineers in its so called "April adjustment" of disagreements between the Boise and Yakima offices (See Perala District Court Affidavit at p. 18). The Regional Director Vissia "split the difference" between the Yakima and Boise offices. See Vissia Deposition, p. 9, and Yribar Deposition, pp. 22-23). Instead, the Bureau should have resolved the differences by an investigation to determine the accuracy and validity of one or the other of the two projections.

20. Irrigation water supply computations, are a standard and accepted part of hydrology and water resource management. Therefore, the components, methodology, and accuracy of such computations may be evaluated by fixed and ascertainable standards.

Dated: August 15, 1985

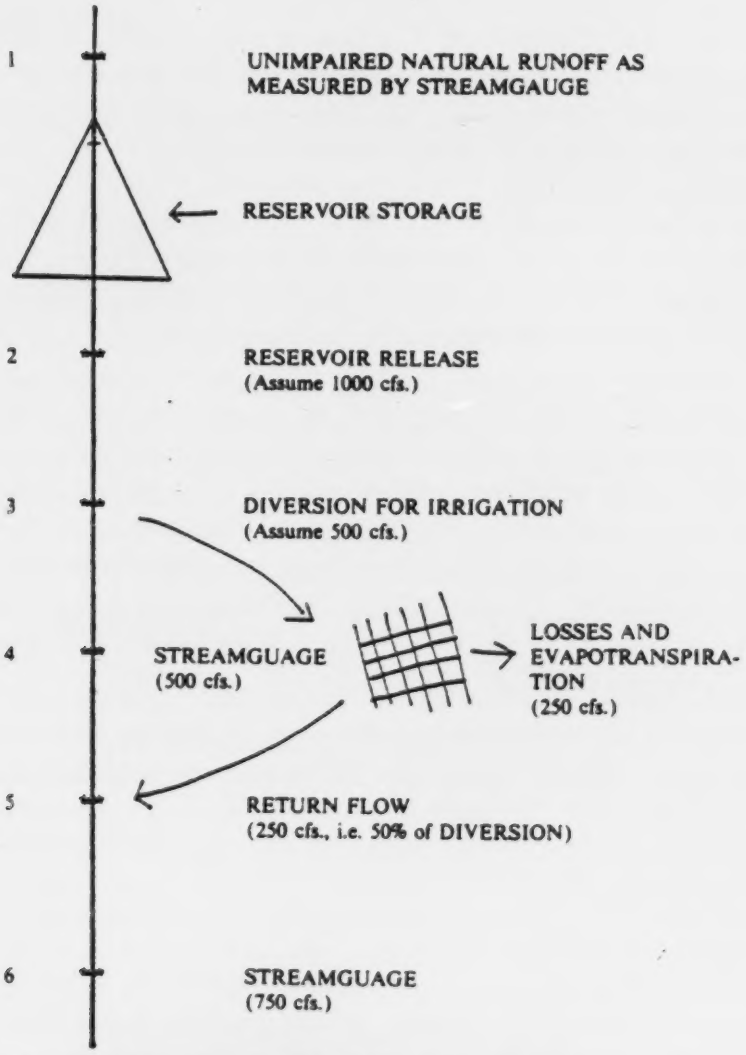
/s/ JOHN A. DRACUP
John A. Dracup

Subscribed and Sworn to before me
this 15th day of August, 1985.

[Seal]

/s/ JANET M. MITCHELL
Notary Public
for the State of California
Residing at San Francisco

SCHEMATIC OF SIMPLIFIED IRRIGATION SYSTEM




NOTE: THE AMOUNT OF WATER AVAILABLE FOR DOWNSTREAM IRRIGATION AT POINT 6 IS NOT THE RESERVOIR RELEASE MINUS THE IRRIGATION DIVERSION (1000 − 500 = 500) BUT IT IS THE RESERVOIR RELEASE MINUS THE IRRIGATION DIVERSION *PLUS* THE RETURN FLOW (1000 − 500 + 250 = 750).

EXHIBIT B

**Appendix H**

Bryan G. Evenson
Halverson & Applegate, P.S.
311 North First Street
P.O. Box 526
Yakima, Washington 98907
Telephone No. (509) 575-6611

Attorneys for Plaintiffs

United States District Court
Eastern District of Washington

Civil No. 82 093 JLQ

H. F. Allen Orchards, Inc., et al.,
Plaintiffs,

vs.

United States of America,
Defendant.

State of Washington
County of Yakima } ss.:

Affidavit of Bryan G. Evenson in Opposition to Defendant's Motion for Summary Judgment

Bryan G. Evenson, being first duly sworn, on oath deposes and says:

1. That your affiant has been one of the attorneys for the plaintiff farmers in both this District Court action and in a contract based action filed in the United States Claim Court since the inception of the litigation in late 1977 and early 1978.

2. That the Claims Court action was commenced as H. F. Allen Orchards, et al. v. United States, Claims Court No. 113-80C, Schinmann v. United States, No. 226-80C, and Redman v. United States, No. 36-81C.

3. That extensive discovery was undertaken in that Claims Court action pursuant to applicable Claims Court rules of discovery. That much if not all of this discovery is also pertinent to this District Court action. That particularly pertinent are the following depositions:

William Gray
Onni Perala
Daniel Yribar
John Taylor
Richard Allen
Larry Vinsonhaler
Rodney Vissia

4. That copies of these depositions are attached hereto as Exhibits A through G to this affidavit and are submitted pursuant to FRCP 32(a). Two pertinent deposition exhibits which have not previously been placed in evidence in the appendix to the motion of the United States filed herein are also attached as Exhibits H and I.

5. That in the related Court of Claims action, Gray, Perala and Yribar also submitted affidavits. That these affidavits are also relevant and pertinent to the issues in this District Court action and should also be submitted herein. However, because your affiant does not at present have clean or fair copies of said affidavits, said clean or fair copies of said affidavits will be submitted in a supplemental affidavit upon their receipt.

DATED this 27th day of August, 1985.

/s/ BRYAN G. EVENSON
Bryan G. Evenson

SUBSCRIBED AND SWORN to before me this 27th day of August, 1985.

PATRICIA BELL
Notary Public, in and for the State of Washington, residing at Wapato.

[SEAL]

In the United States Court of Claims

No. 113-80 C

H.F. Allen Orchards, et al.,
Plaintiffs,

vs.

The United States,
Defendants.

# DEPOSITION OF LARRY VINSONHALLER

Tuesday, June 23, 1981

Reported By:
Denise L. Mann, CSR No. 3897

In the United States Court of Claims

No. 113-80 C

H.F. Allen Orchards, et al.,
Plaintiffs,

vs.

The United States,
Defendants.

Be It Remembered that, pursuant to Notice, and on Tuesday, the 23rd day of June, 1981, commencing at the hour of 10:00 a.m. thereof, at the United States Department of the Interior, Federal Building, 550 West Fort Street, Boise, Idaho, before me, Denise L. Mann, CSR No. 3897, a Certified Shorthand Reporter in and for the County of San Mateo, State of California, personally appeared

Larry Vinsonhaller

called as a witness by the plaintiff; who, being by me first duly sworn, was thereupon examined and interrogated as hereinafter set forth.

Messrs. Goldstein, Barceloux & Goldstein, 650 California Street, San Francisco, California, 94108, represented by M. Reed Hunter, Esq., and Barbara R. Banke, Esq., appeared as counsel on behalf of the plaintiffs.

Messrs. Halverson, Applegate & McDonald, P.O. Box 526, 415 North Third Street, Yakima, Washington, 98907, **[2]**

A. There was a discrepancy in moving from the forecast to TWSA and allocation of the water under the Consent Decree.

Q. Which you described I think as well as you could in the paragraph you just read from page 19 of the Vissia Report; isn't that a fair statement?

A. When we allocated TWSA the return flows were not put into the total water supply available.

Q. You described the nature of that error as best you could in that paragraph which you have just read from page 19?

A. As best as I can understand it.

Q. Now, my question to you before we got to this digression was: Isn't it a fact, realizing again that you are not a hydrologist, from what you were told throughout the course of May, that notwithstanding that error, apparently just as a matter of coincidence, the forecast made by Boise, the opening 860,000 acre feet, pretty well correlated with what occurred during the season?

A. It proved out that way, yes, at the end of the season.

Q. If Yakima had stayed with it, even though it might not have handled return flow correctly, if Yakima had stayed with it they would still have been about where they should have been come May, wouldn't they?

A. I don't know. I assume so. If the forecast of 860 had been used we would have been a lot closer to what actually occurred.

Q. In telling you that they were influenced to cut 860 to 360 because of their comparison with NWS and SCS, did Gray **[25]**

State of California
County of San Mateo } ss.:

I, DENISE L. MANN, CSR #3897, a Notary Public do hereby certify:

That LARRY VINSONHALLER, the witness in the foregoing deposition was by me duly sworn to testify the truth, the whole truth, and nothing but the truth in the within-entitled cause;

That said deposition was reported by me at the time and place therein stated and under my direction was thereafter transcribed as herein set forth; that the foregoing is a full, complete, and true record of said testimony; and that the witness was given an opportunity to read and correct said deposition and to subscribe the same;

That, if signed, the deposition was read by or to said witness, corrected in every particular desired, and was thereafter subscribed by said witness;

That, if unsigned, the deposition was retained by me at the offices of JOSEPH A. DE SOUZA, Certified Shorthand Reporter, 231 Second Avenue, Suite 201, San Mateo, California 94401, and was available for reading, correcting, and signing by said witness.

I further certify that I am not interested in the outcome of said action, nor connected with, nor related to any of the parties in said action or to their respective counsel.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my seal of office this day of , 19 .

DENISE L. MANN
Notary Public

[Seal]

In the United States Court of Claims

No. 113-80 C

H. F. Allen Orchards, et al.,
Plaintiffs,

vs.

The United States,
Defendants.

# DEPOSITION OF RODNEY JAMES VISSIA

Thursday, June 25, 1981

Reported By:
Denise L. Mann, CSR #3897

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In the United States Court of Claims

No. 113-80 C

H. F. Allen Orchards, et al.,
Plaintiffs,

vs.

The United States,
Defendants.

BE IT REMEMBERED THAT, pursuant to Notice, and on Thursday, the 25th day of June, 1981, commencing at the hour of 10:00 a.m. thereof, at the Department of the Interior, Denver, Colorado, before me, Denise L. Mann, CSR No. 3897, a Certified Shorthand Reporter in and for the County of San Mateo, State of California, personally appeared

RODNEY JAMES VISSIA

called as a witness by the plaintiff; who, being by me first duly sworn, was thereupon examined and interrogated as hereinafter set forth.

Messrs. Goldstein, Barceloux & Goldstein, 650 California Street, San Francisco, California, 94108, represented by M. Reed Hunter, Esq., and Barbara R. Banke, Esq., appeared as counsel on behalf of the plaintiffs.

Messrs. Halverson, Applegate & McDonald, P.O. Box 526, 415 North Third Street, Yakima, Washington, 98907, represented by Bryan G. Evenson, Esq., and Alan A. McDonald **[2]**

Q. Well, the point I wish to make is that it was exactly that, wasn't it, just an assumption on his part?

A. Many times that is what predictions are, yes, assumptions. You can't foresee what is going to happen and you have to try to make a scientific judgment or calculated judgment as to what is going to happen.

Q. Do you put those in the same category as a guess?

A. No, they're not a guess. They're based upon historical data.

Q. Well, you would agree that if all he did was guess, it would be a departure from appropriate standards for prediction, don't you?

A. Well, it depends upon what his guess is based upon. I would say he probably could guess closer than you could, for example, on predicting the future.

Q. Well, whether it is a he or me situation, if it was simply a guess, you would agree that it would be a departure from standards in the Bureau, wouldn't you?

A. Yes.

Q. Now, I take it that when you decided to split the difference between these people that that resulted in some increase to the proratibles?

A. Yes.

Q. I believe the percentages we have been given, it increased from about six to 13 percent?

A. Yes.

Q. Then when the error was discovered relating to return flow use, that raised it to what percent? **[12]**

State of California
County of San Mateo } ss.:

I, Denise L. Mann, CSR #3897, a Notary Public do hereby certify:

That Rodney James Vissia, the witness in the foregoing deposition was by me duly sworn to testify the truth, the whole truth, and nothing but the truth in the within-entitled cause;

That said deposition was reported by me at the time and place therein stated and under my direction was thereafter transcribed as herein set forth; that the foregoing is a full, complete, and true record of said testimony; and that the witness was given an opportunity to read and correct said deposition and to subscribe the same;

That, if signed, the deposition was read by or to said witness, corrected in every particular desired, and was thereafter subscribed by said witness;

That, if unsigned, the deposition was retained by me at the offices of Joseph A. De Souza, Certified Shorthand Reporter, 231 Second Avenue, Suite 201, San Mateo, California 94401, and was available for reading, correcting, and signing by said witness.

I further certify that I am not interested in the outcome of said action, nor connected with, nor related to any of the parties in said action or to their respective counsel.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my seal of office this day of , 19 .

DENISE L. MANN
Notary Public

[Seal]

United States Government

Memorandum

Regional Director, Boise, Idaho

Project Superintendent, Yakima, Washington

Subject: TWSA

April-September

1. Assumed 30-35 percent of normal precipitation—guesstimate.

2. Projected storage curve to April 1—860,000.

3. Took hard look at Water Supply Available April-September forecast—549,000.

4. Question what figures to use upon which to apply judgment.

How did we get 360,000

1. Adjusted Bureau's February-July 1077 to take out February and March estimates
residual — 847
based on normal precipitation through forecast period.

2. Compared 847 with Weather Service most probably 549 and Soil Conservation Service 640.

3. Since Weather Service and Soil Conservation Service are April-September numbers and our Bureau of Reclamation number (as we adjusted it) April-July the already high Bureau of Reclamation number would have to be increased to extend to a comparable period April-September. We did not try to do this.

4. We projected Storage gain from February to April 1 as 95,500 a.f.

5. Attempted then to evaluate a number representing the amount of water to be expected from other than the reservoirs which would be available April-September for use above Parker.

6. Our guesstimate was 360,000: to compare with Weather Service and Soil Conservation Service we probably should have

added the 95,500 a.f. projected reservoir gain giving a comparable number of 455,500.

7. Without using a formula or any other scientific device to crank out a number we adopted a bottom line forecast heavily influenced by the fact that other forecasts available to use were taking large drops from January to February. We picked 360,000 a.f.

W. G. Gray

**Appendix I**

Bryan G. Evenson
Halverson & Applegate, P.S.
311 North First Street
P.O. Box 526
Yakima, Washington 98907
Telephone No. (509) 575-6611

Attorneys for Plaintiffs

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United States District Court
Eastern District of Washington

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Civil No. 82 093 JLQ

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H. F. Allen Orchards, Inc., et al.,
Plaintiffs,

vs.

United States of America,
Defendant.

Plaintiffs' Statement of Genuine Issue of Material Fact in Opposition to Defendant's Motion for Summary Judgment

COME NOW the plaintiffs by and through Bryan G. Evenson of Halverson & Applegate, P.S., their attorneys of record, and pursuant to Rule 13(b) of the Rules of Practice for United States District Court for the Eastern District of Washington, file this Statement of Genuine Issues setting forth material facts as to which there is a genuine issue.

It should be noted at the outset that there is almost total disagreement between the United States and the plaintiffs as to all material facts relating to the negligence of the Bureau the nature of its miscalculations of the irrigation water supply in 1977, the effect of those miscalculations and the justification, if any, therefor. In general, United States' entire case and the affidavits of its officers Gray, Perala, and Yribar, are contradicted at every material point by the affidavit of Dr. John Dracup filed by the plaintiffs in opposition to this motion. In general, Dr. Dracup states at section 8, page 4 and 5 of his affidavit that the

computations of the Bureau employees for the irrigation year 1977 were erroneous and were negligently performed. Additionally, defendant's Statement of Material Facts and the affidavits of Gray, Perala and Yribar filed in support thereof also raise unfounded inferences of fact, contain material omissions of fact, and are contradictory to other testimony given in the related claims court action.

Specific major disputes of material fact relative to the United States' motion will be set forth below under separate subheadings for the convenience of the court.

## I. STANDARD OF CARE:

In general, the affidavit of Dr. John A. Dracup throughout contradicts the defendant's statement of material fact and the supporting affidavits of Gray, Perala and Yribar and inferences therefrom that the Bureau's computation of the water supply available for irrigation in 1977 in the Yakima Basin was proper and non-negligent. Specifically, Dracup finds several errors in computation which should have been avoided by competent and prudent hydrologists and water resource managers.

Dracup finds that the Bureau omitted return flow from its initial computations and that return flow is a proper element of any irrigation water supply computation. He found that this resulted from a conceptual error and not an empirical one, i.e. a lack of factual data. Dracup also found the runoff or natural flow component of the irrigation water supply forecast was improperly derived in that the Bureau had without any scientific basis simply correlated runoff and natural flow and then reduced its statistically derived and measured natural flow computation by one-third. Dracup also found that the Bureau's adjustment of internal disputes over the amount of runoff or natural flow by simply splitting the difference was also improper and in breach of standards of care in hydrology and water resource science. (Dracup Affidavit at section 8, pg. 4-5; section 12, pg. 8; section 16, pg. 11-11-12; section 17, pg. 12; section 18, pg. 12-13; section 19, pg. 13).

## II. UNIQUENESS OF CONSENT DECREE TWSA FORMULA:

The affidavits of Gray, Perala and Yribar imply that the consent decree formula for computing a total water supply available was somehow a unique, mysterious or difficult one. In Yribar's affidavit at page 5, he states the decree was unique and unlike that in any other Bureau of Reclamation Project. The Dracup affidavit, however, states that the Consent Decree's three-component formula for determing water supply available would be used by any competent hydrologist or water resource engineer in the computation of any irrigation water supply. (Dracup Affidavit, section 9, p. 5-6).

## III. NECESSITY OF RETURN FLOW "DOUBLE ENTRY":

The affidavits of Perala and Yribar imply that their error in computation of return flow factor of the consent decree formula for total water supply available was empirical, i.e. they did not have enough factual data to be able to determine or quantify the amount of return flow that could be expected. (See Perala affidavit at Sec. 10, pg. 11; Sec. 12, pg. 12; Sec. 23, pg. 19; Sec. 26, pg. 21; Yribar affidavit at Sec. 6, pg. 8-9; . . . Sec. 8, pg. 10-11; Sec. 8, pg. 12; Sec. 9, pg. 12-13; Sec. 12, pg. 14-15).

These statements and the implication that the source of the return flow error was merely an empirical one are contradicted by other statements in the same affidavits filed in this case, and in affidavits and depositions taken in the related Claim's Court case. These statements indicate that the problem was not simply a lack of data, but rather a fundamental conceptual misunderstanding of the nature, role and function of return flow in an irrigation water supply forecast. These statements indicate that in an irrigation water supply forecast, as opposed to a flood control forecast, return flow must be "double entered". (Yribar affidavit, Sec. 8, pg. 12; Sec. 9, pg. 13; Sec. 23, pg. 19; Yribar Claims Court deposition at pgs. 28-29, 34-35; Vinsonhaler Claims Court deposition at pgs. 14-15; Perala Claims Court affidavit at pg. 10-19, 40; Yribar Claims Court affidavit at pg. 6-12).

The necessity for any confident and prudent hydrologist or water resource manager to have recognized the necessity to "double enter" return flow in any irrigation water supply forecast is also discussed in detail in the Dracup affidavit filed herein at Sec. 13, page 8; Sec. 15, pg. 10-11).

## IV. RUNOFF COMPUTATION CANNOT INCLUDE RETURN FLOW:

In his affidavit, Perala states that in computing the faulty irrigation water supply in 1977, the Bureau employed its "runoff" forecast and reasonably, though erroneously, believed that return flow was included or accounted for in those runoff figures. (Perala affidavit, Sec. 10, pg. 10-11; Sec. 11, pg. 12). This, however, is directly disputed in the affidavit of Dracup. Dracup argues that one of the sources of the Bureau's error was in Perala's confusion of the concepts of "natural flow" and "runoff". He directly disputes Perala's assertion that a runoff forecast would include return flow in any meaningful sense in an irrigation water computation. (Dracup affidavit at Sec. 9, pg. 5; Sec. 11, pg. 6-9; Sec. 14, pg. 9-10).

Perala's affidavit itself is contradictory and creates serious credibility questions as to whether or not he in fact believed in 1977 that his runoff computations did include return flow. For example, at Sec. 15, pg. 15 of his affidavit, he quotes from a contemporaneously prepared February TWSA of 1,220,000 acre feet. According to the quotation in his affidavit, this document read as follows:

**February Forecast of TWSA**

| | | |
|---|---|---|
| (1) | Expected storage on April 1 ..... | 860,000 a.f. |
| (2) | Expected *Runoff, including return flow* ... | 360,000 a.f. |
| | Total Water Supply Available ..... | 1,220,000 a.f. |

(Perala affidavit at Sec. 15, pg. 15, emphasis added). However, this document, which is included in the United State's appendix as Document No. 11, in fact states as follows:

| | | |
|---|---|---|
| 1. | Expected storage on April 1 ..... | 860,000 a.f. |
| 2. | Expected *Natural Flow* ..... | 360,000 a.f. |
| | Total Water Supply Available (TWSA) (Emphasis Added) ..... | 1,220,000 a.f. |

The contemporaneous document as opposed to Perala's ex post facto quotation in an affidavit prepared for litigation purposes, indicates that the the time, the Bureau did not believe it was dealing with runoff at all but rather with natural flow and also forgot to include return flow. Furthermore, the difference between the purported quote and the actual document creates a serious credibility question as to Perala's entire testimony.

## V. UNSCIENTIFIC BASIS OF RUNOFF FORECAST:

The accuracy of the Bureau's runoff or natural flow computation is one of the pillar's of the United States' case. Here, it implies that this figure which was in February approximately 360,000 acre feet and was later revised upwards slightly prior to the Bureau's discovery of its return flow omissions in May was reasonable and accurate. (Perala affidavit at Sec. 13, pg. 13; Sec. 14, pg. 13-14; Sec. 15, pg. 14-15; Sec. 16, pg. 16-17; Sec. 18; Yribar affidavit at Sec. 6, pg. 7-10). However, the affidavit of Dracup as well as other documents produced in discovery in the Claims Court case indicate that the runoff or natural flow forecast, regardless of its return flow component, was neither accurate nor scientific.

In his affidavit, Dracup states that the 360,000 acre feet runoff figure the Bureau used in its February TWSA was not properly computed. He states there was no scientific basis to equate precipitation rates to runoff or natural flow as Gray did in his affidavit at pg. 12. (Dracup affidavit at Sec. 16, pg. 11-12). Dracup also states that the Bureau negligently ignored its own precipitation measurements based upon actual snowpack data in the promulgation of the so-called "adoptive" forecast. The Bureau's failure to employ any formula or device in the adoption of this runoff computation did not meet the standard of care of an ordinary reasonable and prudent hydrologists or water research engineers. (Dracup affidavit at Sec. 18, pg. 12-13). Dracup also states that the Bureau's adjustment of the runoff figures in April which split the difference between the Yakima and Boise office figures was also improper. He states that the Bureau should have attempted to resolve differences by investigation to determine the

accuracy and validity of one or the other of two projections. (Dracup affidavit at Sec. 19, pg. 13).

The Bureau's own internal investigation was also critical of the so-called "adoptive" forecast. Gray himself admitted in an internal memorandum that the adoptive forecast was merely a "guesstimate" not based upon any scientific or mathematical method or formula. (Faxogram from Willian Gray to Rod Vissia, dated June 17, 1977, Vissia Claims Court deposition Exhibit 2). Furthermore, the Bureau had compared its own statistically derived and measured runoff computations with those of other federal agencies. The comparison was purported to be one of the reasons for the Bureau's rejection of its own figures and the "adoption" of the much lower "guesstimate". However, the Vissia Report itself indicates that this comparison was faulty because these agencies had removed major diversions from their forecasts necessarily resulting in lower figures. (Vinsonhaler Claims Court deposition, pg. 19-20).

In its own internal investigation, the Bureau was unable to discover any notes, written documentation, or backup data to justify the Yakima Project's "adoptive" guesstimate. (Vinsonhaler deposition, pg. 8-9, 18; Allen deposition, pg.8-9; Taylor deposition, pg. 6-7).

## VI. LATE SPRING AND SUMMER RAINS IMMATERIAL TO COMPUTATION ERRORS:

Throughout the United States' briefing and the supporting affidavits of Gray, Perala and Yribar, it is repeatedly asserted that the Bureau's return flow omission constituted only a small part of the total discrepancy between the Bureau's February TWSA computation and the year end figures. It is repeatedly asserted that return flow accounted for only approximately 350,000 acre feet of a total discrepancy of 850,000 acre feet. (Gray affidavit at Sec. 20, pg. 20; Perala affidavit at Sec. 26, pg. 21; Yribar affidavit at Sec. 11, pg. 14-15). It is further asserted that the difference in the discrepancy was therefore attributable to unforeseen precipitation variously occurring either in late spring or in summer. (Perala affidavit at Sec. 25; Sec. 26, pgs. 20-21; Yribar affidavit at

Sec. 11, pg. 14-15). However, the validity of this spring and summer rain theory is disputed by the plaintiffs on several counts.

First, as noted above, there is a serious question as to the general accuracy, validity, methodology, and care with which the Bureau prepared its natural flow and runoff forecasts. The arguments of Gray, Yribar and Perala in their affidavits assume that the Bureau's initial TWSA computation of only 360,000 acre feet was reasonable and accurate in the first place. This, however, is subject to serious dispute in the affidavit of Dracup submitted herein. See Dracup affidavit at section 16 p. 11-12, section 18 p. 12-13). Furthermore, Bureau employees conceded that the initial considerably higher run off projection which was rejected for the "adoptive" "guesstimate" was, in fact, quite accurate (Vinsonhaler dep. pg. 25, Allen dep. pg. 12).

Secondly, facts established in both the affidavits filed by the United States in this case, and also in the Claims Court discovery indicate that much of the spring precipitation had already fallen prior to the Bureau's discovery of its return flow omission errors in mid-May. Therefore, such precipitation could not account for the tremendous upward adjustment of the TWSA upon discovery of the return flow omissions. For example, in April, as part of the Bureau's adjustments of the differing runoff computations of the Boise and Yakima offices, the runoff forecast was adjusted upward from 360,000 acre feet to 500,000 acre feet to take into account precipitation fallen through March. (Gray affidavit at Sec. 16, pg. 17; Perala affidavit at Sec. 21, pg. 18). This large adjustment for one month's precipitation increased the TWSA available to the plaintiffs from only 6% to 13%. (Gray affidavit at Sec. 16, pg. 17; Perala affidavit at Sec. 21, pg. 18-19). However, upon discovery of the return flow omission, the proratable water supply available to the plaintiffs was increased from 13% to 50%, a huge order of magnitude of increase. (Gray affidavit at Sec. 16, pg. 17; Perala affidavit at Sec. 24, pg. 19).

Furthermore, the arguments of Gray, Perala and Yribar imply that approximately 360,000 a.f. of return flow added to the TWSA in mid-May when the return flow omission error had been discovered was the only additional return flow added to the TWSA throughout the year. However, in his deposition in the

related Claims Court case, Perala implied that additional increases in return flow after the mid-May TWSA which resulted in an increase of TWSA to proratable users such as the plaintiffs from 50% to approximately 70% were in substantial part attributable to continued sustained return flow as well as additional precipitation. (Perala Claims Court deposition, Vol. 1, pg. 97-99).

Finally, there are facts of record from which it may be inferred that any unusual summer precipitation, if it was unusual at all, is simply too small an amount to make any significant difference in the total amount of precipitation throughout the year. A chart showing percentage deviation of precipitation in 1977 was prepared by John Taylor, hydrologist in the Bureau's Boise office. The chart shows that even normal summer precipitation was only a minimal part of the total yearly accumulation. In a typical year, over 76% of the rainfall occurs between October and February, and over 90% between October and May. (Taylor Claims Court deposition, pg. 9-10, Exhibit 1; see also Vissia Report). Taylor found April precipitation was only 40% of normal, March was about normal, and May slightly exceeded normal at 110%. (Taylor deposition, pg. 10).

Even in their affidavits filed in this action, it is conceded that it is the October through March period which produces the major amount of the total precipitation that falls in the Yakima Project. (Perala affidavit at Sec. 7, pg. 8). The Bureau witnesses admitted in the Claims Court case that early rains made only fractional differences in the total amount of TWSA miscomputation. (Gray Claims Court deposition at Vol. 2, pg. 101-104, 142-144; Perala Claims Court deposition at pg. 93-94, 105).

## VII. CONSENT DECREE REQUIRED TWSA COMPUTATION AND PREDICTION:

In argument and in briefing, the United States may imply that the Bureau's undertaking of the TWSA computation under the consent decree was somehow gratuitous or voluntary. For example, in its statement of material facts at Section 15, page 9, the government states that the consent decree does not require the Bureau of Reclamation to calculate a TWSA figure. However, the

affidavits of Gray and Perala state that it would be reasonable or logical for the government to do so. (Gray affidavit at Sec. 9, pg. 11; Perala affidavit at Sec. 8, pg. 9). The Yribar affidavit is even stronger:

> "... The 1945 consent decree requires a prediction of how much water will be diverted by irrigators within the Project."

(Yribar affidavit at Sec. 4, pg. 6). The TWSA computations themselves are an exercise in the science of hydrology which may be evaluated by fixed and ascertainable standards. (Yribar dep. pg. 10-11, Dracup affidavit, section 20, pg. 13).

Therefore, any inference that undertaking the TWSA computation was some optional, gratuitous policy consideration is disputed by the facts raised by the United States itself in its own motion.

## VIII. WATER SUPPLY ANNOUNCEMENTS NOT UNPRECEDENTED:

The United States repeatedly argues, supported by affidavits of Gray, Yribar and Perala that prior to 1977, a TWSA computation under the Consent Decree had never previously been made. This is conceded. However, this fact does not support any inference that the Bureau had not regularly made and publicly announced its computations as to the available water supply for irrigators, even though these computations were not made under the Consent Decree. The affidavit of Yakima Herald Republic employee Donean Marple filed in support hereof incorporates newspaper articles from numerous years prior to the 1977 computation documenting the Bureau's public announcements of their forecasts. Commissioner Vissia also admitted it was normal practice to advise water users of forecasts and conditions. (Vissia Deposition pg. 8).

## VIX. BUREAU HAD SUFFICIENT TIME TO PREPARE CONSENT DECREE TWSA METHODOLOGY:

The affidavits of Gray, Yribar and Perala repeatedly attempt to excuse the Bureau's inablility to arrive at a competent TWSA computation under the Consent Decree by the fact that they had never been required to invoke its rationing requirements before.

(Gray affidavit at Sec. 8, pg. 10; Sec. 20, pg. 21; Perala affidavit at Sec. 6, pg. 7; Sec. 10, pg. 10; Yribar affidavit at Sec. 4, pg. 5; Sec. 9, pg. 13).

However, the farmers dispute any inference from this testimony that the Bureau's incompetence in implementing the Consent Decree computations was excusable. The proratable/nonproratable dichotomy which is invoked only in short water years is one of the most significant portions of the Consent Decree. The Consent Decree which mandates the three-factor TWSA computation was enacted more than 30 years prior to the Bureau's miscalculations in 1977. Yet, during this time, the Bureau had not even attempted to develop a consent decree formula for irrigation allocation in short water years. (Perala deposition, Vol. 1, pg. 24-25, 33-35). The farmers argue that the Bureau's 30 year failure to anticipate such a short water year and to make preparations for computing or calculating the TWSA itself permits an inference of negligence.

Dated this 28th day of August, 1985.

/s/

BRYAN G. EVENSON of
Halverson & Applegate, P.S.
Attorneys for Plaintiffs

**Appendix J**

United States Attorney
Eastern District of Washington
Post Office Box 1494
Spokane, WA 99210
Tel: (509) 456-3811
FTS 439-3811

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United States District Court
Eastern District of Washington

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Civil No. C-82-064 JLQ

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Elbert B. Schinmann and Teddie Schinmann,
Plaintiffs,

vs.

United States of America,
Defendant.

Civil No. C-82-093-JLQ

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H. F. Allen Orchards, Inc., et al.,
Plaintiffs,

vs.

United States of America,
Defendant.

Defendant's Statement of Material Facts

[Filed July 29, 1985]

Defendant, United States of America, pursuant to Local Rule 13(a), submits the following Statement of Material Facts in support of its Motion for Summary Judgment and as to which Defendant contends there is no genuine issue.

1. The plaintiffs in these tort proceedings are a group of farmers and ranchers in the Yakima River Valley in south-central Washington state who claim they suffered economic losses in their farming operations in 1977 when the Bureau of Reclamation underestimated the amount of irrigation water that would be

available to the farmers from the Bureau's Yakima Project during the 1977 irrigation season. The Yakima Project is a Federal irrigation project administered by the Bureau of Reclamation. The plaintiffs seek money damages from the United States for their losses. Jurisdiction is asserted under the Federal Tort Claims Act, 28 U.S.C. § 1346(b); §§ 2671, *et seq.* [Paragraph I, *Schinmann Complaint*, filed January 28, 1982; Paragraph I, *Allen Orchards* Complaint, filed February 12, 1982.]

2. The United States, through the Bureau of Reclamation, has contracted with various local irrigation districts in the Yakima Valley to deliver water through the facilities of the Yakima Project during the irrigation season. [Paragraph 6, *Affidavit* of Wm. G. Gray.] The irrigation season in the Yakima Valley normally extends from April 1st to October 15th each year. [Paragraph 3, *Affidavit* of Wm. G. Gray.] After receiving the water from facilities of the Yakima Project, usually in monthly allocations, the districts then convey the water in their own canals and laterals for distribution to the farmers and ranchers who are members of their respective districts. [Paragraph No. 5, *Affidavit* of Wm. G. Gray.]

3. The plaintiffs in these actions are members of irrigation districts in the Yakima River Valley which have contracted with the United States to receive irrigation water for the use of their members through the facilities of the Yakima Project. [Paragraph 17, *Affidavit* of Wm. G. Gray; Appendix Document No. 28, *List of Claimants.*]

4. The plaintiffs do not contend that the Bureau of Reclamation failed to deliver the proper amounts of water to their districts during the 1977 irrigation season.[1] Instead, the plaintiffs claim

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[1] See page 5-6, 4 Cl.Ct. 601 (1984), Appendix Document No. 2. The concession of the plaintiffs referred to in the Claims Court decision appears at page 66, Plaintiff's Reply Memorandum Upon Motions for Summary Judgment. Furthermore, none of the irrigation district and water user groups holding rights for the delivery of Yakima Project water have filed any claims with the Bureau of Reclamation that they did not receive their proper amounts of water allocations during the 1977 irrigation season.

that prior to the start of the 1977 irrigation season, the Bureau of Reclamation negligently miscalculated the amount of water that would be available during the irrigation season and erroneously announced that the Yakima Project would only be able to deliver 6 to 7 per cent of their districts' normal water supply in 1977.[2]

5. When more water became available during the 1977 irrigation season than had been predicted by the Bureau of Reclamation, the plaintiffs claim they suffered economic losses because, in reliance upon the Bureau's forecast of a water-short irrigation season, they had altered their usual farming practices by foregoing the planting of certain crops and the substituting of less profitable crops, by reducing their cattle herds, by incurring unnecessary expense through purchase of additional irrigation equipment and water rights, and by drilling wells to augment their water supply. [Paragraph V, *Allen Orchards Complaint.*][3]

6. The Yakima River basin encompasses lands in Kittitas, Yakima, and Benton Counties, Washington. The basin is drained by the Yakima River and its tributaries. The Yakima River rises in the Cascade Mountains and flows southeasterly 175 miles to its confluence with the Columbia River. The irrigated lands in the Yakima Valley generally parallel the course of the Yakima River. [Paragraph 3, *Affidavit* of Wm. G. Gray; Appendix Document No. 4, *Yakima Project Map.*]

7. The Yakima Project was authorized by the Secretary of the Interior in 1905, pursuant to the Federal Reclamation Act of June 17, 1902, 32 Stat. 388 (now codified, as amended, in various sections of 43 U.S.C., Chapter 12). There are approximately 500,000 acres of irrigated lands in the Yakima Valley and of this acreage approximately 475,000 acres receive water through the

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[2] Plaintiffs in the *Schinmann* case also contend the Bureau of Reclamation was negligent in "failing to enlarge and expand Project water storage facilities equivalent to the Government's contractual commitment to deliver irrigation water." [Paragraph IV, *Schinmann Complaint.]*

[3] Plaintiffs in the *Schinmann Complaint* did not categorize their damage claims, but it is assumed their claims are similar to those asserted by plaintiffs in the *Allen Orchards* case.

facilities of the Yakima Project. [Paragraphs 3 and 4, *Affidavit* of Wm. G. Gray.]

7. The facilities of the Yakima Project include six storage reservoirs and related works such as diversion dams, canals and laterals, and pumping plants. Runoff waters in the Yakima watershed are captured in the Government reservoirs during the winter and spring, and the waters are released to the irrigation districts during the summer to be distributed to the farms and ranches within the boundaries of the various districts. The Bureau reservoirs have a combined storage capacity of 1,070,000 acre-feet. These reservoirs with their capacities (in acre-feet) and their construction periods are as follows:

| | | |
|---|---|---|
| Keechelus ..... | 157,800 | (1913-1917) |
| Kachess ..... | 239,000 | (1910-1912) |
| Cle Elum ..... | 436,000 | (1931-1933) |
| Bumping ..... | 33,700 | (1909-1910) |
| Clear Creek ..... | 5,300 | (1914-1918) |
| Tieton (Rimrock) ..... | 198,000 | (1917-1925) |

Congress has not authorized any additional storage for the Yakima Project since the completion of the Lake Cle Elum reservoir in 1933. [Paragraph 5, *Affidavit* of Wm. G. Gray.]

8. During the irrigation season, the Bureau of Reclamation upon requests of the irrigation districts releases water from the reservoirs in accordance with the districts' contracts with the United States and subject to the water rights of the various districts established in a Consent Decree entered on January 31, 1945, in *Kittitas vs. Sunnyside*, Civil No. 21, USDC Eastern District of Washington. [Appendix Document No. 1, *Consent Decree.*] The Consent Decree specifies the amounts of water to which the districts and water groups are entitled during an irrigation season, and it establishes the obligations of the Bureau of Reclamation for the delivery of water to the districts during the irrigation season. There are no contracts between the United States and the individual water users, including the plaintiffs, and the Bureau of Reclamation is not responsible for the distribution of or the allocation of water among the individual water users within a district after the water is delivered to the headworks of the district. [Paragraph 5, *Affidavit* of Wm. G. Gray.]

9. In Paragraph 18 of the Consent Decree, the "total water supply available" [TWSA] within the Yakima watershed to satisfy the delivery obligations of the Bureau of Reclamation is defined as follows:

> "... that amount of water available in any one year from natural flow of the Yakima River, and its tributaries, from storage in the various Government reservoirs on the Yakima watershed and from other sources, to supply the contract obligations of the United States to deliver water and to supply claimed rights to the use of water on the Yakima River, and its tributaries, heretofore recognized by the United States."

The Decree provides that the water rights established in the Decree shall have equal priority and in the event of a water short year the water rights are to be prorated equally, except for certain water rights identified in Paragraph 19 of the Decree.

10. The water rights identified in Paragraph 19 of the Consent Decree as not being subject to proration during a water shortage are rights of districts (designated as "non-proratables") holding senior water rights, and the water rights of districts subject to proration (designated as "proratables") are rights of districts holding entitlements junior to the senior water rights. The total amount of water rights established in the Decree are 2,630,000 acre-feet to be delivered each year by the Project; however, the annual amount of water delivered to the districts each irrigation season has averaged 2,250,000 acre-feet. [Paragraph 6, *Affidavit* of Daniel Yribar.] Approximately 45 per cent (1,256,000 acre-feet) of the decree rights are non-proratable, and 55 per cent (1,374,000 acre-feet) are subject to proration. [Paragraph 7, *Affidavit* of Wm. G. Gray; Appendix Document No. 6, *List of Diverters.*]

11. Two of the larger districts within the Project, the Kittitas Reclamation District and the Roza Irrigation District, have water rights that are 100 per cent proratable. The Wapato Irrigation Project holds rights that are 50 per cent non-proratable and 50 per cent proratable. The majority of the rights of the Sunnyside Valley and Yakima-Tieton Irrigation Districts are non-proratable.

Most of the smaller districts and diverters have rights that are 100 per cent non-proratable. [Paragraph 7, *Affidavit* of Wm Gray.]

12. There are approximately 13,000 individual water users within the Yakima Project. Approximately half of the water users (6,500) are supplied with non-proratable water, and the remaining water users are supplied with water subject to proration during periods of water shortage. [Paragraph 7, *Affidavit* of Wm. G. Gray.] The 159 plaintiffs in these proceedings are members of districts having proratable water rights. Seventy five plaintiffs are members of the Roza Irrigation District; sixteen are members of the Roza and Sunnyside Valley Irrigation Districts; twenty three are members of the Kittitas Reclamation District, and ten are members of the Wapato Irrigation Project. The remaining plaintiffs are members of various districts and combinations of districts. [Paragraph 17, *Affidavit* of Wm. G. Gray; Appendix Document No. 28, *List of Claimants.*]

13. Drought conditions prevailed in the Yakima River basin during the fall of 1976 and into February of 1977. [Paragraph 8, *Affidavit* of Wm. G. Gray; Paragraphs 7 and 8, *Affidavit* of Onni *Perala;* Paragraph 3, *Affidavit* of Daniel Yribar.] Precipitation in the Yakima watershed was only 33 per cent normal for September through December of 1976 [Paragraph 7, *Affidavit* of Onni Perala]; the Yakima Project is heavily dependent for its water supply upon snowpack accumulated in the watershed during the winter and in January, 1977, the snowpack was only 4 per cent of normal. [Paragraph 8, *Affidavit* of Wm. G. Gray.] The drought conditions in the Yakima Valley were widely publicized, [Appendix Document No. 8, *Letter to Secretary of the Interior from Senator Jackson;* Appendix Document No. 9, *Water and Power Situation Report;* Appendix Document No. 10, *Water Supply Outlook,* and by February, 1977, "everyone [in the Valley] knew the outlook was bad, but no one knew how bad" and it was recognized that 1977 was "going to be a year that a TWSA figure would have to be calculated" for the Yakima Project. [Paragraph 20, *Affidavit* of Wm. G. Gray.]

14. Following the entry of the Consent Decree in January, 1945, there had been no occasion in the Yakima Valley for the calculation of a TWSA figure for the Yakima Project, [Paragraph

8, *Affidavit* of Wm. G. Gray; Paragraph 6, *Affidavit* of Onni Perala], and the Decree did not specify how the rights of the senior water right holders were to be protected in a time of water shortage, and in February, 1977, the Bureau of Reclamation interpreted the Decree to require the Yakima Project to first provide for the full amount of water rights designated as non-proratable in the Decree, with any remaining water to be prorated equally and delivered to the districts having proratable water rights. [Paragraph 10, *Affidavit* of Wm. G. Gray; Paragraph 14, *Affidavit* of Onni Perala; Paragraph 4, *Affidavit* of Daniel Yribar.]

15. Although the Consent Decree does not require the Bureau of Reclamation to calculate a TWSA figure for the Yakima Project, the managers and board members of the irrigation districts were anxious to know the Bureau's estimate of the amount of water that would be available during the 1977 irrigation season, [Paragraph 9, *Affidavit* of Wm. G. Gray; Paragraph 8, *Affidavit* of Onni Perala], it appeared appropriate for the Yakima Project to provide such a forecast, and the Bureau personnel at the Project and at Regional Headquarters in Boise, Idaho, attempted to do so. [See Paragraph 9, *Affidavit* of Wm. G. Gray; Paragraph 8, *Affidavit* of Onni Perala; Paragraph 4, *Affidavit* of Daniel Yribar.]

16. On February 7, 1977, the Yakima Project office issued its initial TWSA forecast for the 1977 irrigation season projecting a total water supply of 1,220,000 acre-feet. This was based upon 860,000 acre-feet of anticipated storage water and anticipated runoff of 360,000 acre-feet which the Bureau hydrologists believed inciuded any return flows that might develop in the system. The Bureau hydrologists stressed that this was a pessimistic estimate based upon the worst conditions the hydrologists believed might occur during the remainder of 1977. With non-proratable water rights to be first supplied, this TWSA estimate would provide only 6 to 7 per cent of the normal water supply of the proratable districts. [Paragraph 9, *Affidavit* of Wm. G. Gray; Paragraph 15, *Affidavit* of Onni Perala.] The most severe effect of this TWSA forecast would fall upon the districts having fully proratable water rights, i.e., the Roza Irrigation District and the

Kittitas Reclamation District. [Paragraph 15, *Affidavit* of Onni Perala.]

17. On March 18, 1977, the Roza Irrigation District filed a motion before the United States District Court for the Eastern District of Washington asking the Court to reopen the 1945 Consent Decree, to enjoin the Bureau of Reclamation from allocating the water from the Yakima Project upon the Bureau's interpretation of the requirements of the Decree, and that the Court order a "more just and equitable" distribution of the water than that proposed by the Government. [Appendix Document No. 19, *Application by Roza Irrigation District.*]

18. The Bureau's TWSA forecast of February 7, 1977, remained the same during February; somewhat improved precipitation occurred in the Yakima watershed in March, and on April 7, 1977, the Yakima Project issued a revised TWSA forecast projecting a total water supply of 1,390,000 acre-feet. This was composed of 890,000 acre-feet of anticipated storage and anticipated runoff of 390,000 acre-feet. This revised forecast would provide proratable irrigation districts with 13 per cent of their normal water supply. [Paragraph 21, *Affidavit* of Onni Perala; Appendix Document No. 27, *The Vissia Report*, page 18.]

19. On April 26, 1977, Judge Neill of the United States District Court for the Eastern District of Washington denied the Motion of the Roza Irrigation District to reopen the 1945 Consent Decree and confirmed the Bureau's interpretation of the Decree as to how Project waters were to be allocated in a water short year. [Appendix Document No. 20, *Order Denying Motion to Reopen.*] The District Court also appointed the Yakima Project Superintendent as watermaster, [Appendix Document No. 23, *Order Appointing Watermaster*], and directed the watermaster to ensure that Project waters were allocated in accordance with the Decree during the 1977 irrigation season. [Appendix Document No. 24, *Instructions to the Watermaster.*]

20. During April and early May of 1977, Bureau hydrologists obtained measurements of the diversions actually being made within the Project and reports of the waters actually returning to the system for reuse (return flow). With this information, the

Bureau hydrologists added 350,000 acre-feet as estimated return flows to their water supply calculations, and on May 17, 1977, the Yakima Project issued a revised TWSA forecast predicting 1,740,000 acre-feet as the water supply for the 1977 season. This included the 350,000 acre-feet return flow increment, 890,000 acre feet of storage, and 500,000 acre-feet of anticipated runoff waters. This forecast would provide proratable districts with 50 per cent of their normal water supply. [Paragraph 24, *Affidavit* of Onni Perala; Paragraph 9, *Affidavit* of Daniel Yribar; Appendix Document No. 27, *The Vissia Report.*]

21. Favorable precipitation occurred in the Yakima watershed during the summer of 1977. Precipitation was 122 per cent of normal in July, 292 per cent of normal in August, and 176.4 per cent of normal in September. [Paragraph 25, *Affidavit* of Onni Perala.]

22. For the entire 1977 irrigation season in the Yakima Valley, the Bureau of Reclamation delivered 2,070,000 acre-feet of water to the districts through the facilities of the Yakima Project. Overall, the proratable districts received 70 per cent of their normal water allocations. [Paragraph 16, *Affidavit* of Wm. G. Gray.]

23. The 1977 water deliveries of the Bureau of Reclamation were 850,000 acre-feet more than the 1,220,000 acre-feet of water supply predicted in the February TWSA estimate. Of the increase, 350,000 acre-feet resulted from return flows in the system; the additional 500,000 acre-feet increase resulted from the favorable precipitation occurring during the summer, lower ambient temperatures during the summer reducing the demand for water, diversions by water users less than their entitlements, and increased efficiency by the districts and the individual water users in conveying and applying the water that was delivered. [Paragraph 20, *Affidavit* of Wm. G. Gray.]

24. Following the 1977 irrigation season, the plaintiffs in these actions (except Plaintiff No. 107, R. E. Redmon & Sons, Inc.) filed administrative claims with the Bureau of Reclamation under the provisions of the Federal Tort Claims Act, 28 U.S.C. § 2675(a). After the claims were denied by the Solicitor of the

Department of the Interior, [Appendix Document Nos. 34, 35, 36 and 37, *Solicitor Denial Letters*], the plaintiffs filed these actions seeking money damages from the United States under the Federal Tort Claims Act.

Dated this 23rd day of July, 1985.

Respectfully submitted,

JOHN E. LAMP
United States Attorney
/s/ ROBERT M. SWEENEY
Robert M. Sweeney
Assistant U.S. Attorney

Attorneys for Defendant
United States of America

## Appendix K

Yakima Herald-Republic

Friday, February 9, 1979

Profile

Jim Gosney

### BILL GRAY

No drought in his worries

The stack of documents arrived before noon, and now they are piled in a large paper box behind his desk.

Bill Gray did not count them, nor did he compute the total amount of money sought by the documents. All that will be done later.

The documents all are the same, and represent perhaps the final repercussion of the 1977 non-drought in the Yakima Valley. Filed by users of water from the Yakima Project, they are claims for damages against the Bureau of Reclamation under the Federal Tort Claims Act. If the bureau is found negligent, the damages will be paid.

Bill Gray smiles resignedly at the stack of claims. "I don't know how many there are—something around 150 of them, I guess. I haven't figured how much money is involved."

The slender man with a quick grin is in a strange position for a government administrator. He's been under fire from nearly all angles. Some water districts have publicly sought his hide, and conversations in coffee shops have him somewhere between John Dillinger and Judas Iscariot.

Because Gray's office "lost" about 350,000 acre-feet of water during the 1977 drought, a loss that was later discovered after hundreds of thousands of dollars in well-drilling projects was spent, an untold number of farm fields were left unplanted and others sold to prevent financial disasters.

The grin is still there, but there are edges of sadness. "We blew it," he says. "There's really no other way to say it. There was

water in the system that we didn't know we had, and hadn't computed before. It's as simple as that—we blew it."

Few do not remember the late winter and early spring of 1977, and Gray, as head the irrigation project that provides water for more than 500,000 acres, was more attentive than most. He watched closely the snowpack in the Cascade Mountains, for the snowpack would feed the five reservoirs in the system, and eventually, serve the needs of the water users of the Yakima Valley.

The importance of it all was not lost on him, for water is the very touchstone of the economic base of the community.

But no snow fell, and by February, Gray could already foresee a drought. The indications were bleak—five percent of normal was the first prediction released by the bureau office. That amount signified a disastrous growing season.

As the next two months came and went, the indications stayed alarmingly low. The mountains remained dry, and Gray began issuing his fears more frequently. It was going to be dry, too dry.

By early May, the decision had already been made by many growers inside the Yakima Project. Several decided to "spud in" their own wells; others opted to not plant at all. Both were fateful decisions.

Because two things happened, nearly at once. Mother Nature finally decided to cooperate, for one, dropping nearly 500,000 acre-feet in rain and snow that would eventually reach the growers, and Gray discovered a mistake.

The mistake is now known as "unaccounted-for return flow," about 350,000 acre-feet of water, which gave growers between 80 and 90 percent of normal water. No drought, no disaster. A water shortage, suddenly, did not exist.

"Due to the unprecedented dry condition, we were speculating a lot at that time," Gray recalls. "And simply, we noticed that there was a quantity of water in the system that is always in the system. Call it return flow, or natural flow, but we found that we

weren't drawing from the reservoirs all the water we thought we should."

The investigation into the mysterious water finally revealed its source. It was always there, but never measured, the studies determined.

Throughout the subsequent months, when angry water users were measuring Gray's neck for the rope, he and the bureau never retorted to the frequent epithets. If his patience was tried, he never admitted it, and his smile, though stressed, remained.

Bill Gray, it turns out, prefers problems to smooth sailing. He applied for the supervisor position in 1972 simply because it posed problems, although he could have remained, happily unknown, in a comfortable office somewhere.

He certainly has found enough problems since he came to Yakima, and his luck is due for a change.

First there was the $8 million repair and modernization project he started to update the system and replace worn equipment that had served for more than 20 years.

"Nothing had been done, except to put another band-aid on top of a band-aid. The main gates at Lake Keechelus and Lake Cle Elum needed replacement, data acquisition systems were needed, and all the 15 districts supported what I had in mine. I had only been here two weeks when I got started."

But the $8 million tag was conservative, it turned out. On the Lake Cle Elum job, the gate replacement ran $1 million more than the contractor's estimate. And at Lake Keechelus, an excess cost of $130,000 had to be absorbed in emergency relief capabilities to get the water out of the lake.

And now the claims for damages for the non-drought of 1977 sitting behind his desk, Gray considers his adversaries and smiles.

"Well, I've never liked routine, and I'm certainly not getting it here, am I? I wish there were better ways, but there aren't.

"To many people, this particular job is to represent everything and anything to the water users. Their impression of my job is to not do anything else but to carry their message up to the top.

Well, I do, but I'm part of this job too, and I've got my own experience and knowledge.

"People tend to divide into sides—one says to hell with flood control and look out for agriculture, and another says the opposite. My job is both concerns, and I guess it's in the middle."

Bill Gray smiles again and glances out his window. "Pretty day," he says, absently. "Doesn't look like snow in the mountains, though."

**Appendix L**

United States

Department of the Interior

Bureau of Reclamation

Roza Division—Yakima Project, Washington

Amendatory Repayment Contract Between the United States of America and the Roza Irrigation District

This Amendatory Contract, made this 22nd day of July, 1953, between The United States of America (hereinafter called the United States), acting through the Asst. Secretary of the Interior and pursuant to the Federal Reclamation Laws, and the Roza Irrigation District (hereinafter called the District), an irrigation district organized and existing under and by virtue of the laws of the State of Washington,

Witnesseth, That:

## EXPLANATORY RECITALS

2. Whereas, under the authority of the Federal Reclamation Laws, the United States is constructing the Roza Division of the Yakima Project in the State of Washington, known as the Yakima Project;

3. Whereas, the United States and the District, acting pursuant to the Federal Reclamation Laws, entered into a water supply contract dated July 8, 1921, which contract has been supplemented and amended, and the contract for the construction of the canal and distribution system for the Roza Division dated December 13, 1935, which contract has been supplemented and amended;

4. Whereas, the District, as the duly authorized representative of the water users involved, desires to enter into an amendatory contract to secure the benefits of the Reclamation Project Act of 1939 (53 Stat. 1187); and

5. Whereas, the Secertary has determined that in his judgment the provisions of this amendatory contract will provide a fair and equitable treatment of the repayment problem of the water users of the Roza Division, and will be in keeping with the general purposes of the Reclamation Project Act of 1939;

Now, Therefore, in consideration of the mutual and dependent stipulations and covenants herein contained, it is mutually agreed by and between the parties hereto as follows:

## DEFINITIONS

6. The following terms hereinafter used in this contract shall have the following respective meanings:

(a) "Secretary" shall mean the Secretary of the Interior or his duly authorized representative.

(b) "Federal Reclamation Laws" shall mean the Act of June 17, 1902 (32 Stat. 388) and all acts amendatory thereof or supplementary thereto, including without limitation by this enumeration the Reclamation Project Act of 1939 (53 Stat. 1187) and the Act authorizing the execution of this amendatory contract.

(c) "Project" shall mean the entire Yakima Project constructed and being constructed by the United States under the Federal Reclamation Laws.

(d) "Government-District contract" shall mean the water supply contract of July 8, 1921, as amended and supplemented by the contract of April 15, 1935, and the contract for the construction of the canal system dated December 13, 1935, as amended and supplemented by contracts dated January 5, 1943, August 11, 1947, January 17, 1949, and January 6, 1953.

(e) "Reserved works" shall mean all the storage reservoirs of the project; the diversion dam and canal headworks located in sections 32 and 33, township 15 north, range 19 east, Willamette meridian; the first 10.9 miles of the Roza canal; Wasteway No. 2; the Roza switchyard and substation, transmission lines, and other pumping plant substations constructed to serve lands in the Roza Division of the project (these works together comprising the

pumping transmission facilities); and all works appurtenant and incidental to any of the foregoing facilities.

(f) "Transferred works" shall mean the irrigation distribution works constructed by the United States in connection with the Roza Division of the project exclusive of the reseved works and the Roza powerplant, consisting of the Roza canal, except the first 10.9 miles, pumping plants, wasteways, laterals and sublaterals and appurtenant facilities in connection therewith.

(g) "Roza powerplant" shall mean the powerplant to be constructed by the United States in section 17, township 13 north, range 19 east, Willamette meridian, at Wasteway No. 2, located at mile 10.9, on the Roza canal, and that amount of capacity of the first 10.9 miles of the Roza canal, the cost of which has been assigned for return from power revenues, together with all appurtenant-facilities in connection therewith, but excluding the works herein defined as reserved works.

## SCOPE AND TERM OF AMENDATORY CONTRACT

7. This amendatory contract supersedes and takes the place of the Government-District contract and shall become effective on the date of its execution by the Secretary, after approval by the Congress, in accordance with section 7 of the Reclamation Project Act of 1939. Except as to the provisions of the Government-District contract which have been fully executed prior to the date of this amendatory contract which shall remain unaffected hereby, the Government-District contract shall remain effective only to the extent expressly provided in this contract.

## WORKS BUILT OR TO BE BUILT BY THE UNITED STATES

8. (a) The United States has heretofore constructed the works which are required for the impounding of waters for the project, including lands within the District.

(b) The United States will undertake to complete the construction of the Roza powerplant, and the reserved and transferred works needed for the irrigation of the lands within the District, including these principal works:

> A diversion dam and canal headworks on the Yakima River; a main canal for carrying water from the diversion dam approximately 95 miles, known as the Roza canal; 17 electrically powered pumping plants and one turbine-driven pump; the pumping transmission facilities; wasteways; laterals and sublaterals for the delivery of water to the lands in the District; and some main outlet drainage works; together with all works appurtenant or incidental to the foregoing facilities;

all as determined by the United States to be necessary for irrigation service to a maximum of 72,000 acres of irrigable lands within the District.

(c) The estimated construction cost of the works built and to be built to serve the irrigable lands within the District, including two million five hundred thousand dollars ($2,500,000) as the share of the costs of the storage division allocable to the District's rights therein and including a funded operation and maintenance deficit (inclusive of terminal leave payments to employees on the transfer of works to the District whenever that transfer occurs) of not to exceed seven hundred seventy-nine thousand one hundred dollars ($779,100) as of December 31, 1954, but excluding these costs assigned for repayment from power revenues:

> (1) The cost of the Roza powerplant (estimated at two million six hundred seventy-seven thousand dollars ($2,677,000);
>
> (2) One million dollars ($1,000,000) of the cost of the Roza canal;
>
> (3) The Cost of the pumping transmission facilities (estimated at eight hundred eighty-six thousand six hundred twenty dollars ($886,620)); and
>
> (4) One million one hundred thirty-seven thousand eight hundred eighteen dollars ($1,137,818) of the estimated cost of irrigation works;

and also excluding the costs assigned for repayment by other water users organizations or local units of Government and contributions received toward construction costs (estimated at one hundred sixty-three thousand four hundred sixty-two dollars ($163,462)), is eighteen million three hundred ninety thousand dollars ($18,390,000).

(d) Additional expenditures not included in the estimates set forth in (c) of this article may be required to build additional parts of the system of outlet drainage works and other works, the total additional expenditures under this subarticle not to exceed seven hundred sixty thousand dollars ($760,000) of which not to exceed one hundred thousand dollars ($100,000) may be for works other than drainage.

(e) Total expenditures for irrigation works to serve lands within the District including expenditures to be funded as operation and maintenance deficit but exclusive of costs chargeable to the Roza power plant and transmission facilities and exclusive of costs assigned for repayment by other water users organizations or local units of Government and contributions received towards construction costs shall be limited to nineteen million five hundred twenty-seven thousand eight hundred eighteen dollars ($19,527,818) (being eighteen million three hundred ninety thousand dollars ($18,390,000) plus one million one hundred thirty-seven thousand eight hundred eighteen dollars ($1,137,818)) and the cost of future work within the scope and limit of (d) above.

## DISTRICT'S CONSTRUCTION CHARGE OBLIGATION

9. (a) The District's original maximum construction charge obligation is hereby established as nineteen million one hundred fifty thousand dollars ($19,150,000), including the estimated operation and maintenance deficit and storage division costs as described in article 8(c) and the estimated cost of future work described in article 8(d). This total amount reduced by: .

(1) Any payments made by the District on account of construction charges prior to the effective date of this contract less the amounts being deferred for crediting against annual instalments under the provisions of (b) of article 11;

(2) The excess, if any, of seven hundred seventy-nine thousand one hundred dollars ($779,100) over the actual operation and maintenance deficit to be funded.

(3) The excess, if any, of two million five hundred thousand dollars ($2,500,000) over the actual construction costs allocable to the District's share of the storage division, as finally determined by the Secretary; and

(4) The excess, if any, of seven hundred sixty thousand dollars ($760,000) over the actual costs of the future work done within the scope of (d) of article 8;

comprises the District's net construction charge obligation under this contract.

(b) The Secretary shall notify the District in writing as and when final determination of costs are made as the basis of adjustments as provided in (a) of this article, providing the District with a full statement of the expenditures made and the portions thereof allocable to the District.

(c) There has not been reflected in the District's construction charge obligation any allocation of project costs by reason of benefits from the project to other than irrigation purposes. If allocations of construction costs on a nonreimbursable basis are authorized by law, the Secretary shall notify the District with respect to such nonreimbursable allocations and of the extent to which the District's construction charge obligation will be affected thereby.

(d) The construction charge obligation shall be repaid by the District to the United States in successive annual instalments determined as provided in articles 11 and 12.

## ESTABLISHMENT OF IRRIGATION BLOCKS

10. The Secretary has, from time to time, designated by appropriate notices areas of land within the District for which irrigation water was available from the project works at substantially the same time, each of these areas comprising an irrigation block. Seven such blocks have been designated, their respective areas being as established by public notices heretofore issued.

## DETERMINATION OF BASIC ANNUAL INSTALMENTS

11. (a) In keeping with the provisions of the Reclamation Project Act of 1939 there is hereby established for each irrigation block a development period of ten years beginning with the first year that water was available to each block for the entire irrigation season, that year being for the respective blocks as follows:

| Block | Year |
|---|---|
| 1 | 1942 |
| 2 | 1943 |
| 3 | 1944 |
| 4 | 1946 |
| 5 & 6 | 1947 |
| 7 | 1951 |

There is also hereby established an annual construction charge instalment of $4.10 per irrigable acre which, but for the operation of this article, would be effective as to each block beginning with the first year after the close of the development period. It being the desire of the District, however, in order to avoid an abrupt increase in water users payments at the end of the development period, to realize the monetary benefits of the 10-year development period by spreading certain construction charge instalments over a longer period commencing with the first availability of water in each block, the District shall pay its construction charge obligation for the lands in each irrigation block in basic annual instalments determined as provided in this article, each of which shall be due and payable one-half on or before June 30 of the year following that for which it is due and one-half on the succeeding December 31. Each of such basic annual instalments, subject to

adjustment under (b) of this article, shall be the aggregate of the annual sums due and payable by the District to the United States on account of each irrigation block, determined for each block as follows:

(1) For the first five years commencing with the year in which water was first available to the block—$1 times the irrigable area.

(2) For each year commencing with the sixth year for which water was available to the block and continuing through the 20th year—the irrigable area times an annual instalments beginning with $1.20 for the sixth year and increasing by 20 cents each year to $4 for the 20th year.

(3) For each year commencing with the 21st year for which water was available to the block—$4.10 times the irrigable area.

(b) Payments on construction charges made under the terms of the Government—District contract, in the case of some irrigation blocks, have exceeded, and the case of others have been less than, the amounts that would have been paid had the instalments been determined under the provisions of (a) of this article. The Secretary shall notify the District in writing as to the amounts of the excess or deficiency in payments as to each irrigation block as of the effective date of this contract, and the excess or deficiency in payments for any block shall be credited or added, as the case requires, at the rate of $1 per irrigable acre per year on the annual instalment accruing on account of the lands in that block, beginning with the instalments due for the year in which this contract becomes effective until the entire amount of the excess or deficiency in payment for the block has been absorbed.

## ADJUSTMENTS OF ANNUAL INSTALMENTS

12. (a) At any time the board of directors of the District may, by appropriate notice, elect to have the basic annual instalments provided in article 11 adjusted in the manner provided in this article, and once having so elected, thereafter each basic annual instalment shall be adjusted in accordance with this article. If the District, not having so elected, becomes delinquent

for more than twelve months in the payment of any construction charge instalment, the Secretary, by written notice to the District, may provide that the basic annual instalments shall be adjusted in the manner provided in this article.

(b) The annual instalment for any calendar year shall be determined by increasing or decreasing the basic annual instalment for that year as computed under article 11 as follows:

(1) The maximum irrigable acreage within the District stated in article 17 as adjusted from time to time shall, for the purpose of this article, comprise the "project contract unit".

(2) Each calendar year for which the basic annual instalments are to be adjusted under this article, the Secretary shall determine the "annual returns", and shall determine the "normal returns" for the project contract unit, and shall determine the "parity ratio".

(i) "Annual returns" shall mean the amount of the gross crop returns per acre of the area in cultivation within the project contract unit for any calendar year, excluding the acreage and income from lands cropped in hops.

(ii) The "normal returns" shall be determined by taking the weighted average of the annual returns of those ten calendar years of the thirteen-year period including the calendar year for which normal returns are being determined and the twelve calendar years preceding it, in which the annual returns for such years are highest. Until such time as adequate records of annual returns for a full thirteen-year period from all irrigation blocks in the District are available, the normal returns may be determined by filling out the thirteen-year period by considering, in addition to the annual returns from the project contract unit, the established annual returns from the Sunnyside Division of the Yakima Project for the years for which such returns from the project contract unit are not available.

(iii) The "parity ratio" for each year as of December 31 of that year shall be determined as follows:

> There shall be determined, (1) for the commodity group "all crops and livestock", the average for the year of the national index of prices received by farmers for the commodity group; (2) the average national parity index; and (3) the ratio of the average national index of prices received by farmers for the commodity group to the average national parity index. Average indexes, as required by this subarticle, will be derived by finding the simple average of the montly indexes of prices received by farmers for this commodity group and the simple average of the monthly national parity indexes. This ratio shall be the parity ratio for that year.

The national index of prices received by farmers and the national parity index to be used in the foregoing computations shall be those determined by the Secretary of Agriculture under the provisions of Title II of the Agriculture Act of 1948 (62 Stat.1250), as it may be amended from time to time. The commodity group to be used under (iii) above for the foregoing computations may be changed from time to time by the Secretary if a change is requested by the District's board of directors and if the Secretary finds that such a change is justified because the commodities currently being used in those computations no longer are principal or important factors in the agricultural economy of the project contract unit. If the parity prices which are basic to the determination of the parity ratio hereunder cease to be determined officially by the Secretary of Agriculture at any time during the repayment period, the factor of parity ratio shall no longer be applied in determining any instalment under this contract.

(3) A determination of the annual and the normal returns and the parity ratio by the Secretary for any calendar year will be on the basis of final figures as nearly as practicable. The Secretary, however, on or before September 1 of any year, will on request of the District provide it with an estimate of these factors for that year. In connection with

such request, the District will provide the Secretary with a preliminary crop estimate for the year on or before September 1, or such other date as may be fixed by the Secretary.

(4) Each calendar year for which the basic annual instalments are to be adjusted under this article, the Secretary shall determine the per cent of normal returns for said year by which the annual returns for that year exceed or are less than the normal returns. For each one per cent (1%) or major fraction of one per cent (1%), there shall be an increase or decrease, respectively, of two per cent (2%) in the instalment for that year, as determined under the provisions of article 11, and that sum shall be further increased or decreased by multiplying it by the parity ratio determined under the provisions of (b) of this article; provided, that in no event shall the amount of such adjusted instalment be less than fifteen per cent (15%) or more than one hundred seventy-five per cent (175%) of the base instalment for that year, as determined under the provisions of article 11. In no event, however, shall the last instalment payable by the District under the provisions of article 11 and of this article be in an amount greater than necessary to complete payment of the construction charge obligation under this contract. The Secretary shall notify the District of his determinations under this article on or before February 15 of the calendar year following that for which such determinations are made.

(5) If at any time by reason of the operations of this article the construction charge obligation of the District has been reduced to an amount equal to or less than one hundred fifty thousand dollars ($150,000), the unaccrued portion shall be paid on the due dates of the next instalment without further adjustment under this article.

## ROZA POWERPLANT AND POWER RATES

13. (a) Effective as of the date the Roza powerplant is first ready for service hereunder as announced by the Secretary, there is hereby reserved from the electrical power and energy to be produced at the Roza powerplant a sufficient amount of power

and energy to operate all pumping plants to be constructed by the District or the United States to serve the irrigable lands within the District's pump areas. Such reserved power and energy will be available to each of the pumping plants at the voltages and points of delivery as may be agreed on between the District and the United States.

(b) The reserved power and energy shall be made available for the purposes above stated at rates that shall conform to the following standards:

(1) Until there has been returned to the United States its investment in the Roza powerplant and those additional construction costs assigned for return from power revenues as indicated by article 8, the rates to be charged the District for power and energy for irrigation pumping shall be sufficient only to return to the United States the costs of operation and maintenance, including replacements, of the Roza powerplant and pumping transmission facilities, and to return the capital investment in the Roza powerplant and those additional construction costs assigned for return from power revenues, taking into account revenues available from the disposal of power and energy in excess of that reserved and used for irrigation pumping by the district.

(2) After the return of construction costs as provided in (1) above, rates shall be sufficient only to return to the United States such share of the operation and maintenance costs, including replacements, and such other costs as are reasonably and properly allocable to the generation and delivery of the power and energy reserved for and delivered to the District as herein provided.

Rates established hereunder shall be adjusted by the Secretary from time to time to conform to the foregoing standards, but not oftener than once every five years unless otherwise mutually agreed. Payment for reserved power and energy made available as herein provided shall be effected by inclusion of appropriate items therefor in the cost of operation and maintenance of reserved works as provided in article 20.

(c) Until power reserved hereunder is available from the Roza powerplant, the United States, with the approval of the District's board of directors, shall either extend the existing contract of April 30, 1952, between the Bureau of Reclamation and the Bonneville Power Administration, or shall enter into other arrangements, for furnishing to the District electric energy required to operate the pumping plants of the Division. The Secretary shall, by written notice, advise the District of the time and amount of the payments to be made for the furnishing of such power.

(d) Unless and until legislation is enacted authorizing the transfer of the Roza powerplant to the District and the completion of arrangements in accordance with such legislation, title to the Roza powerplant, a plant to be constructed as incidental to the irrigation works to serve the Division, shall be and remain in the exclusive control, possession, and ownership of the United States.

## STORAGE AND DELIVERY OF WATER BY THE UNITED STATES

14. (a) The United States will impound and store water for the irrigation of irrigable lands within the District, and will deliver said water from the project supply, subject to the conditions of this contract, and in amounts hereinafter specified at the headworks of the Roza canal.

(b) The total annual supply water that will be delivered by the United States hereunder shall not exceed 375,000 acre-feet measured at the headworks at the diversion dam in the Yakima River except as that quantity may be reduced as otherwise provided in this contract.

(c) The annual supply to be provided hereunder shall be furnished by months, and not to exceed the quantity shown in the following schedule:

| | |
|---|---|
| During April | 10% |
| During May | 15% |
| During June | 19% |
| During July | 19% |
| During August | 19% |
| During September | 12% |
| During October | 6% |

Nothing herein contained shall, however, prevent the United Staes from delivering on a different schedule at the request of the District if a revision of the schedule is not in conflict with other vested water rights and the interests of the United States and the various water users having rights in the project supply will not be injured thereby.

(d) The District's original construction cost obligation for its share of the project water supply, set tentatively at two million five hundred thousand dollars ($2,500,000), shall be determined when costs of the pooled storage of the project's storage division are finally established, in accordance with the provisions of the contract of July 8, 1921, as amended by the contract of April 15, 1935, Symbol and No. Ilr-463.

(e) The supply of water to operate the Roza powerplant will be diverted by the United States at the diversion works and carried through the first 10.9 miles of the Roza canal to Wasteway No. 2. No part of said water supply for the Roza powerplant shall be deducted from the water supply to be made available to the District hereunder.

## PRORATION AMONG CONTRACTING PARTIES

15. (a) The United States, to the extent permitted by law, will treat on an equal footing with respect to priority all authorized divisions of the project and all lands of irrigation districts, water users associations, corporations, and all water users with whom the United States has contracted or may hereafter contract under the Federal Reclamation Laws, except to the extent that these provisions are modified by the decree of the United States District Court, dated January 31; 1945, entered in the case of *Kittitas Reclamation District, et al., plaintiffs v. Sunnyside Valley*

*Irrigation District, et al., defendants* (Civil Action No. 21, Eastern District of Washington, Southern Division). All water supply contracts hereafter made by the United States with respect to the project shall contain a similar declaration with regard to priority, and the Secretary shall, under the terms of the Federal Reclamation Laws, provide for the irrigation of no greater area of land in the aggregate than will, in his opinion, render it practicable in all years or (sic) ordinary runoff to supply authorized divisions and other contractors with the amounts of water fixed and stipulated by the Secretary. In case of shortage of water in a year of unusually low runoff, such as to make it impossible to supply fully all of the lands governed by similar proration provisions, each division and each contractor shall be entitled to a supply of water diminished pro rata, measured at the respective points of measurement, except as otherwise limited in this article; and it shall be the duty of the project officer, in operating the storage reservoirs constructed by the United States within the Yakima River watershed, to divide the water in accordance with the provisions of this article. The pro rata share herein provided for shall be determined by the ratio of the water supply available for all divisions of the project, and for all parties making contracts of tenor similar to this contract under the Federal Reclamation Laws involving waters of the Yakima River Basin, to the total water supply fixed and stipulated for said divisions and parties, after making appropriate deductions for whatever prior rights are required to be recognized. Delivery of such pro rata share shall be received by the District in full satisfaction of the quantity of water herein contracted for on behalf of the District for such irrigation season.

(b) The provisions of this article and the preceding article 14 are intended, by the restatement thereof, to carry forward and continue in operation the District's rights in the project water supply as defined in the Government-District contract and as modified by the decree referred to in (a) above.

## PROTECTION OF WATER SUPPLY

16. In case a dispute arises as to the character, extent, priority or validity of the right of the United States or the District to use

the water supply claimed for the project, the District shall promptly bring and diligently prosecute judicial proceedings for the determination of such dispute and shall take all other measures necessary toward the defense and protection of the water supply, either independently or in cooperation with the United States, where the Secretary and the District board of directors determine that such proceedings or other measures are desirable. Nothing in this article, however, shall be construed as precluding the United States or the District, independently or in cooperation, from taking such action as either the Secretary or the District board of directors deem necessary to protect the water supply.

## IRRIGABLE AREA OF THE DISTRICT

17. (a) The irrigable area within the District is estimated not to exceed 72,000 acres, as will be more particularly described in the various public notices that have heretofore been issued or may hereafter be issued by the Secretary with respect to lands in the District.

(b) The water supply made available under this contract shall be furnished only to lands which with the approval of the Secretary have been classified as irrigable.

(c) While the classification of lands as the basis of determining the basic annual instalments to be paid by the District to the United States shall be as above stated, the District board of directors may, with the approval of the individual water users concerned, for purposes of assessments and matters of its own internal administration, make adjustments in the irrigable area from time to time so long as the 72,000 acre maximum limit is not exceeded by more than 1,000 acres. No change in the District's construction charge obligation or in the basic annual instalment will be made by any such adjustments except those that may be provided by the Congress pursuant to the procedure established in (d) of this article.

(d) If at any time, the board of directors of the District shall determine that any specific areas of the District have deteriorated on account of seepage, alkaline or other like reasons to the point where profitable agricultural use may no longer be made of such

areas, and such areas comprise sufficient acreage to reduce the remaining project irrigable area to less than 71,000 irrigable acres, then the said board may, by resolution, request the appointment of a committee for the purpose of investigating the condition of such lands. Upon receipt of such resolution from the District, the Secretary shall appoint a member of the committee, the District shall appoint a member and the members thus appointed shall select a third member. The committee so chosen shall investigate the condition and productivity of the specific areas listed in the resolution and make a report of its findings. The Secretary shall, upon receipt of such report, recommend to the Congress that any lands listed as unsuitable for agricultural use, taking into account district charges for irrigation water, be removed from the list of paying lands of the project and the charges on said lands shall be terminated, and he shall further recommend, to the extent there is no available additional irrigable lands upon which the water may be feasibly used, that the District obligation be reduced by the amounts thereafter to be payable by the lands found to be unsuited for further feasible agricultural use.

## INTERIM OPERATION OF THE PROJECT WORKS IN KEEPING WITH THE FEDERAL RECLAMATION LAWS

18. (a) The operation and maintenance of the project works, except for the reserved works and the Roza powerplant, is to be taken over by the District at a time to be announced in writing by the Secretary after the District directors have, by appropriate resolution, indicated approval of the time of transfer. Until such notice of transfer, the United States shall continue to operate the project works, and the District shall pay, in advance, the costs of such operation and maintenance as herein provided.

(b) Payment shall be made for the operation of the works to be transferred on the basis of annual estimates by the Secretary. These estimates shall be in addition to the cost of operation and maintenance of the reserved works, as provided in article 20 and in addition to the cost of power and energy for irrigation pumping to be supplied the District from the Roza powerplant or under the provisions of (c) of article 13. The notice of this annual estimate

shall contain an itemized statement of the estimated cost of operation and maintenance of the works to be transferred to be incurred in the following calendar year. This notice shall be furnished to the District on or before September 1 of the calendar year preceding the one for which the notice is issued. The District shall pay the amount stated in the notice on or before the time established in the notice.

(c) Whenever the funds so advanced to operate the works to be transferred to the District will be inadequate, the Secretary may give a supplemental notice, stating therein the amount of additional funds required, and the District shall advance that additional amount on or before the date specified in the supplemental notice. If funds advanced by the District under this article exceed the actual cost of operation and maintenance of the works to be transferred to the District for the year for which advanced, the surplus shall be credited on the operation and maintenance charges for the works to be transferred to become due for succeeding years.

(d) This article is to be in effect only until such time as the Secretary announces that said works are to be transferred to the District and the District takes over said works in compliance with said notice.

## TRANSFERRED WORKS: CARE, OPERATION AND MAINTENANCE THEREOF

19. (a) At any time after the effective date of this contract, and after obtaining the consent of the board of directors of the District, the Secretary may transfer to the District the care, operation and maintenance of the works defined herein as the transferred works, or any part thereof. At the time of such transfer, the Secretary shall notify the District of his intention so to transfer to the District and shall furnish an appropriate listing of the works to be transferred.

(b) All equipment and supplies being used by the United States for the operation and maintenance of the works to be transferred and which the Secretary determines, after consultation with the District, will be required for District operation and

maintenance, shall be so transferred. The transfer shall be made, however, only on the making of contractual arrangements satisfactory to the Secretary for payment to the United States, within not to exceed five years from the date of transfer, of that part of the cost of the equipment and supplies involved not theretofore charged to the District.

(c) Upon the works being transferred, the District will accept the care, operation and maintenance of the transferred works, and will continue to care for, operate and maintain the transferred works in such manner that they will remain in as good and efficient condition and of equal capacity for the carrying and distribution of irrigation water as of the date of the transfer to the District, and will use all proper methods to secure the economical and beneficial use of the irrigation water. The care, operation and maintenance of the transferred works, after transfer to the District, shall be without cost or expense to the United States.

## OPERATION AND MAINTENANCE OF RESERVED WORKS

20. (a) The reserved works shall continue to be under the care, operation and maintenance of the United States. The District shall pay to the United States the cost of operating and maintaining the reserved works, including the cost of power and energy furnished under (c) of article 13; but, commencing with the date when the Roza powerplant is ready for service as announced by the Secretary under the provisions of article 13, the costs of operation and maintenance, including replacements, of the transmission facilities shall be excluded from the costs of reserved works which are to be paid by the District under the provisions of this article, thereafter to be treated as part of the cost of providing power and energy for irrigation pumping under the provisions of (a) and (b) of article 13.

(b) Payment shall be made for each calendar year on the basis of annual estimates by the Secretary. The notice of these annual estimates shall contain an itemized statement of the estimated cost of operation and maintenance of all reserved works to be incurred in the following calendar year, including the District's

share of rehabilitation and betterment expenditures that have been or may hereafter be scheduled by the Secretary for return over an extended period. The notice shall be furnished to the District on or before Septmeber 1 of the calendar year preceding the one for which the notice is issued. The District shall pay the amount stated in the notice on or before the time established in the notice.

(c) Whenever the funds so advanced will be inadequate to operate and maintain the reserved works, the Secretary may give a supplemental notice, stating therein the amount of the additional funds required, and the District shall advance that additional amount on or before the date specified in the supplemental notice. If funds advanced by the District under this article exceed the actual cost of operation and maintenance of the reserved works for the year for which advanced, the surplus shall be credited on the operation and maintenance charges to become due for succeeding years.

## KEEPING TRANSFERRED WORKS IN REPAIR

21. (a) The District shall promptly make any and all repairs to the transferred works for the proper care, operation and maintenance of the transferred works. No substantial change in any of the transferred works shall be made by the District without first obtaining the written consent of the Secretary.

(b) The Secretary may cause to be made, from time to time, a reasonable inspection of the transferred works to ascertain that the terms of this contract are being met by the District.

## TITLE OF TRANSFERRED WORKS

22. Title to the transferred works shall remain in the United States until otherwise provided by the Congress.

## OPERATION AND MAINTENANCE CHARGE LEVIES AND ASSESSMENTS

23. (a) The provisions of this article are made with the object, among other things, of encouraging the economical use of

water and of distributing the operation and maintenance charges equitably among the lands of the District.

(b) Each year the District shall assess an amount necessary to pay the operation and maintenance of the works of the District, including the cost of power as provided in article 13. The assessment to be made hereunder is to be apportioned equally among all the irrigable lands of the District, and shall include all charges to be made under the terms of this contract, including the cost of power for irrigation pumping, but exclusive of the charges for the basic annual instalment of the District lands, as provided in article 11 hereof.

(c) The District shall levy a minimum annual operation and maintenance charge against each irrigable acre within the District, and the payment of such minimum charge shall be required whether or not water is used. The amount of water in acre-feet per acre which is to be delivered each year on payment of the minimum annual charge shall be determined by the District's board of directors, but it shall not exceed three (3) acre-feet for the lands in the District. For water to be delivered each year in excess of the minimum amounts, the landowners or water users involved shall pay to the District an excess charge as follows:

(1) For the first additional acre-foot, or fraction thereof, at a rate per acre-foot not less than 10% more than the rate charged for water made available under the annual minimum charge for each unit.

(2) For the next additional acre-foot, or fraction thereof, at a rate per acre-foot not less than 25% more than the rate charged for water made available for the year under the annual minimum charge for each unit.

(3) For each additional acre-foot, or fraction thereof, at a rate per acre-foot not less than 50% more than the rate charges for water made available for the year under the annual minimum charge for each unit.

## RESERVE FUND FOR OPERATION AND MAINTENANCE

24. (a) The District shall establish a reserve fund for operation and maintenance of the transferred works, which fund shall be maintained by the District apart from other District funds in a depository meeting the requirements of the laws of the State of Washington as to the disposition of irrigation district funds, or may be invested in United States bonds or in such other securities as are approved by the Secretary.

(b) The District shall include in the annual operation and maintenance assessments levied against the water users in the District an annual amount per irrigable acre for the accumulation of such reserve fund until it equals two hundred eighty-eight thousand dollars ($288,000). The annual assessment shall be not less than equal to 5 per cent of the average operation and maintenance charge for the preceding five (5) years until said sum of two hundred eighty-eight thousand dollars ($288,000) has been accumulated, and thereafter such further annual amounts shall be levied whenever the fund has been reduced below that amount.

(c) The funds shall be available only (1) to meet those costs of operation and maintenance of project works which are unusual or extraordinary after advance notice in writing has been given to the Secretary as to a proposed use, and (2) to meet other operation and maintenance costs when the use therefor is approved in advance by the Secretary.

## DEFAULT: RESUMPTION OF CONTROL OF TRANSFERRED WORKS

25. (a) Should the District, after transfer to it of the transferred works, default in any manner in the performance of any of the provisions of this contract, and should it fail to correct the default within sixty (60) days after request in writing by the Secretary so to do, the United States may take over the operation and maintenance of all of any part of the transferred works. Such operation and maintenance by the United States shall continue until the Secretary determines that the District is again capable of

operating and maintaining all or any part of the transferred works then being operated and maintained by the United States, and that all or a part of those works should be retransferred to the District. When such determination is made, written notice thereof, together with the effective date of the retransfer, shall be given to the District; and the District shall accept the operation and maintenance of the portion of the transferred works thus retransferred on the effective date and shall thereafter operate and maintain those works in accordance with this contract.

(b) During any time any of the transferred works are operated and maintained by the United States, the cost of operation and maintenance shall be paid annually in advance by the District to the United States. Such payments shall be on the basis of annual estimates made by the Secretary. Such annual estimates shall contain a statement of the estimated cost of operation and maintenance of the transferred works to be incurred by the United States in the following year. The notice of estimates shall be furnished to the District on or before September 1 of the calendar year preceding the one for which the notice is issued. When the United States takes over initially the operation and maintenance of any part of the transferred works, the Secretary shall give the District immediately:

(1) A notice of the estimated amount of such charge from the time the United States started operating and maintaining the works to the end of that calendar year; and

(2) A notice to cover the following year when the initial taking over occurs after September 1 of any year.

(c) The District shall pay the amounts set out in any such notice to be paid by the District on or before the date or dates fixed by the Secretary, and shall without delay levy whatever special assessments or toll charges are necessary to raise the funds for payment of such amounts.

(d) Whenever in the opinion of the Secretary funds so advanced will be inadequate to operate and maintain the works being operated by the United States, he may give a supplemental notice stating therein the amount of additional funds required, and the District shall advance that amount on or before the date

specified in the supplemental notice. If funds advanced by the District under this article exceed the actual cost of operation and maintenance for such works for the year for which advanced, the surplus shall be credited on any amounts thereafter to become due from the District.

## GENERAL OBLIGATIONS—ASSESSMENTS

26. (a) All the lands included in the District shall be obligated through the District to pay to the United States the full amount of the construction charge obligation to be paid by the District for the lands of the District as provided in article 9 of this contract, regardless of delinquencies as to particular lands in payment to the District of assessments and charges.

(b) The District shall cause to be levied and collected all necessary assessments and charges, and will use all the authority and resources of the District to make all payments to the United States when due and to meet its other obligations under this contract.

(c) Should the District be in default at any time in the payment of construction charge instalments, the Secretary, by written notice to the District may require the District to levy toll charges for the collection of its construction charge instalments from water users in advance of water delivery, and also establish a toll charge to be paid in advance of water delivery in addition to, or in the place of, any toll charges levied by the District.

## COMPUTATION OF COSTS

27. The cost, which makes up the various obligations to be paid by the District to the United States under this contract, shall embrace all expenditures within the maximums set out in this contract of whatsoever kind in relation to the function for which the charge is made, including, but without limitation by reason of this enumeration, cost of surveys and investigation, labor, property, material and equipment, engineering, legal, superintendence, administration, overhead, general expenses, inspection, special services and damage claims of all kinds, whether or not involving

the negligence of the officers, agents, or employees of the United States.

## REFUSAL TO DELIVER WATER IN CASE OF DEFAULT

28. (a) No water from the project water supply shall be delivered to or for the District if the District is in arrears in the advance payment of operation and maintenance charges owed to the United States, if any, or more than twelve (12) months in arrears in the payment of construction charge obligation instalments, or more than twelve (12) months in arrears in the payment of any other amounts owed to the United States under this contract. The District shall refuse to deliver water to lands or parties who are in arrears in the advance payment of operation and maintenance charges due from such lands or parties to the United States or to the District, or to lands or parties who are in arrears for more than twelve (12) months in the payment of amounts due from such lands or parties to the United States or to the District for construction charge obligations or for any other amounts owed by the District to the United States under this contract. The provisions of this article are not exclusive and shall not in any manner prevent the United States from exercising any other remedy given by this contract or by law to enforce the collection of any payments due under the terms of this contract.

(b) The United States may enter on the transferred works or any part thereof in possession of the District to shut off water being delivered in violation of the provisions of this article or article 31. In the event the United States enters onto the transferred works or any part thereof in possession of the District, neither the United States nor its officers or employees shall be liable for any damages resulting directly or indirectly from the refusal to deliver water which had been heretofore delivered in violation of the provisions of this article or of article 31.

## PENALTY FOR DELINQUENCY IN PAYMENT

29. Every instalment or charge required to be paid to the United States under this contract and which remains unpaid after

it shall become due and payable shall be subject to and the District shall pay a penalty at the rate of one-half per cent per month from the date of delinquency.

## ALL BENEFITS CONDITIONED UPON PAYMENT

30. (a) Should the District fail to levy the assessments, tolls, or other charges against any lands in the District required to be levied to meet the District's obligation to the United States under this contract, or, having levied, should the District be prevented from collecting such assessments, tolls, or other charges by any judicial proceedings, or otherwise fail to collect them, such lands shall not be entitled to receive water from the project supply, and the District, except as otherwise ordered by a court of competent jurisdiction, shall not deliver water to such lands from the project water supply unless and until arrangements for its delivery satisfactory to the Secretary have been made.

(b) As to any such lands the District is hereby authorized, as a fiscal agent of the United States, to collect whatever charges may be required under the delivery arrangements made as provided in this article. Payment shall be required as a condition precedent to the delivery of water. Collections so made by the District shall be paid promptly to the United States in the manner directed by the Secretary.

(c) No action taken by the Secretary under the provisions of this article shall in any manner relieve the District of the obligations assumed by it under this contract.

## LANDS FOR WHICH WATER IS FURNISHED; LIMITATIONS ON AREA

31. (a) The water delivered under the terms of this contract shall be used solely for distribution by the District to water users for irrigation and domestic uses incidental thereto.

(b) The District (and the United States while it is operating and maintaining the transferred works) will operate the irrigation system to the end of making available to each irrigable acre of

land in the District, during each irrigation season, that quantity of water to which it is entitled.

(c) Pursuant to the provisions of the Federal Reclamation Laws, water made available hereunder shall not be delivered to more than one hundred sixty (160) irrigable acres of land in the project in the ownership of any one person or other entity, except that, if irrigable lands in excess thereof have been acquired by foreclosure or other process of law, by conveyance in satisfaction of mortgages, by inheritance or devise, water therefor may be furnished temporarily for a period not to exceed five (5) years from the effective date of such acquisition or such longer period as may be approved by the Secretary. In the case of an individual either having stock in two or more corporations which have title to irrigable lands within the project or owning irrigable land in his own name and having stock in a corporation or corporations which have irrigable lands within the project, the individual's proportionate stockholdings in such corporations shall be regarded as proportionate interests in the corporations' landholdings for the purpose of the application of the acreage limitation stated in this article. The limitation stated in this subarticle shall cease to operate when the construction charge obligation hereunder to the United States has been paid in full. It shall cease, also, as to the land in any one ownership when the construction charge obligation hereunder allocable to such land has been fully paid to the United States.

## UNITED STATES NOT LIABLE FOR WATER SHORTAGE OR INTERRUPTION

32. No liability shall accrue against the United States or any of its officers, agents or employees for damage, direct or indirect, arising by reason of shortages in the quantity of water available through the project works or interruptions in water deliveries to lands in the District resulting from drought, inaccuracy in distribution, hostile diversion, prior or superior claims, accident to or failure of facilities of the project works, whether or not attributable to negligence of officers, agents, or employees of the United States, or other causes of whatsoever kind. Nor shall the District's

obligations to the United States under this contract be reduced by reason of such shortages or interruptions.

## WASTE, SEEPAGE AND RETURN-FLOW WATERS

33. (a) The United States or the District does not abandon or relinquish any of the waste, seepage, or return-flow waters attributable to the irrigation of the lands to which water is supplied under this contract. All such waters are reserved and intended to be retained for the use and benefit of the United States as a source of supply, first, for the lands within the District, and thereafter for lands within the project.

(b) If suitable drainage or return-flow waters from any part of the project shall at any time be or become available at points where it can be used on lands of the District, the United States or the District may supply such water as a part of the supply to which the lands in the District are entitled, except that the utilization of such waters from lands within the District shall not reduce the entitlements of the District to the diversions at the headworks of the Roza Canal as established in article 14.

## INSPECTION OF TRANSFERRED WORKS

34. The Secretary may cause to be made, from time to time, after advance consultation with the District, a reasonable inspection of the transferred works to ascertain whether the terms of this contract are being met by the District. Such inspections shall not exceed one a year and the District shall be provided with a report of each such inspection.

## USE OF PROJECT FACILITIES FOR MISCELLANEOUS PURPOSES; REVENUES THEREFROM

35. (a) The United States, as owner, may use or permit the use of any project facility or feature for any purpose not inconsistent with the rights of the District under this contract.

(b) Miscellaneous revenues received from incidental activities in connection with the construction or operation and maintenance

of the reserved works shall be and remain the property of the United States.

(c) Miscellaneous revenues received from incidental activities in connection with the operation and maintenance of the transferred works shall accrue to the benefit of the District and shall be credited against the District's net construction charge obligation.

## BOOKS, RECORDS, AND REPORTS

36. (a) The District shall maintain a set of books of account, showing all financial transactions of the District, keep such other records as the Secretary may request, and submit such reports based thereon as he may require from time to time.

(b) Subject to applicable Federal laws and regulations, the secretary of the District, or his representative, shall have full and free access at all reasonable times to the project account books and official records of the Bureau of Reclamation relating to the construction and operation and maintenance of the project and the status of the accounts concerning the District's payments of construction and operation and maintenance charges, with the right at any time during office hours to make copies thereof. Subject to applicable state laws and regulations, the proper representatives of the United States shall have similar rights in respect to the account books and records of the District.

## CROP RETURNS AND CENSUS

37. (a) The District shall furnish to the United States each year, on or before December 31 of the year, reports covering the crops produced on lands within the District.

(b) Should the District elect to adjust its annual instalment under the provisions of article 12, then at such times as the Secretary deems it necessary or desirable, but only after first consulting with the board of directors of the District, the Secretary may cause a special crop census to be taken on all or any part of the lands in the District, but such special census shall not be taken oftener than once each calendar year. Such a census shall be for the purpose of checking the crop reports furnished to the

United States by the District and of furnishing an independent source of information as to the agricultural income from the lands in the District. In connection with such a census the Secretary may require information to be given under oath. In the event any water user refuses to give such information when requested to do so by the Secretary's authorized representative, the representative may estimate the crop production and per-acre income of such water user. Estimates so made shall be given the same weight as though based on information furnished under oath by the water user in adjusting the annual sum to be paid by the District under this contract.

## OVERHEAD, INSPECTION, AND REPAIR CHARGES TO BE PAID BY THE DISTRICT

38. (a) On July 15 of each year, from the effective date of the transfer to the District of works for operation and maintenance pursuant to article 19 until the District's construction charge obligations to the United States are repaid in full, the following costs for each calendar year, ending on the preceding December 31, shall be paid:

(1) The cost of any inspections under the provisions of article 34.

(2) Cost of repairs to the transferred works made by the United States under the provisions of articles 19 and 21.

(3) Cost of any special crop census under the provisions of article 37.

(4) Other costs for such work performed for the benefit of the District by the United States at the direction of the Secretary which, by Federal Reclamation Laws, are chargeable to the District.

(b) To the extent possible, services for which costs are applicable under this article shall be undertaken only after first informing the District of the services involved and their probable costs. The first payment under this article shall be due and payable on July 15 of the year following the notice provided in article 19, and shall cover the calendar year ending the preceding

December 31, but the determinations of costs hereunder shall not include items of cost that have accrued and for which the District has made other arrangements for payment or satisfaction.

## EMPLOYMENT OF MANAGER

39. Until the construction charge obligations under this contract have been paid in full, the District shall employ as manager or superintendent a competent irrigation engineer, or other person who has had at least three (3) years' experience as a manager or superintendent in the operation of works similar to the transferred works of the District. The employment of such manager or superintendent shall be subject to the approval of the Secretary. Should the Secretary, after first consulting with the District's board of directors, give notice that any manager or superintendent employed by the District is unsatisfactory in that capacity and provide his reasons therefor, the District will promptly terminate the employment of such person, and will employ one that is satisfactory.

## PERFORMANCE OF WORK WITH CONTRIBUTED FUNDS

40. (a) At the request of the District, the United States, at its option, pursuant to the act of March 4, 1921 (41 Stat. 1367, 1404), may perform with funds contributed by the District any construction or maintenance work within the authority of the District but which is not otherwise provided for by this contract. If the United States determines that it will undertake any such work, funds therefor shall be advanced by the District as directed by the Secretary. The advance shall be accompanied by a certified copy of a resolution of the District's board of directors describing the work to be done and authorizing its performance by the United States with the District's funds.

(b) After completion of any work so undertaken, the United States shall furnish the District with a statement of the cost of the work done. Any unexpended balance of the funds advanced will be refunded to the District or applied as otherwise directed by the District.

## RIGHTS-OF-WAY

41. (a) The United States, so far as is practicable, will, without charge, use for works that may be built under this contract rights-of-way reserved under the act of August 30, 1890 (26 Stat. 391), but the District shall, at the request of the United States, secure releases to the United States and the District as to all damages that may arise in connection with the exercise of these rights-of-way.

(b) The District shall, if and when requested by the Secretary, acquire and convey to the United States all lands or interests in lands required for the construction and operation and maintenance of any works that may be built under this contract.

## TERMINATION OF RECORDABLE CONTRACTS

42. (a) The termination date of the provisions of the Government-District contracts providing for recordable contracts entered into thereunder between landowners and the District shall be the effective date of this contract. All payments made or to become due to the District on or before that date under those contracts on account of such provisions shall be retained or collected and applied as therein provided.

(b) After the termination date of these contracts the Secretary will announce, by an appropriate recordable document, this termination, and will take appropriate steps, by offering for filing in the appropriate county offices, to establish of public record the fact of termination.

## CONFIRMATION OF CONTRACT

43. The execution of this contract shall be authorized or ratified by the qualified electors of the District at an election held for that purpose. The District, after the election and upon the execution of this contract, shall promptly secure a final decree of the proper court of the State of Washington approving and confirming this contract and decreeing and adjudging it to be a lawful, valid, and binding general obligation of the District. The

District shall furnish to the United States certified copies of such decrees and of all pertinent supporting records.

## CHANGES IN DISTRICT ORGANIZATION

44. While this contract is in effect, no changes shall be made in the District, either by inclusion or exclusion of lands, by partial or total consolidation or merger with another district, by proceedings to dissolve or otherwise, except with the consent of the Secretary evidenced in writing.

## PUBLIC LANDS SUBJECT TO ASSESSMENT

45. Pursuant to the provisions of section 3 of the act of May 15, 1922 (42 Stat. 541), all unentered public lands and entered public lands for which no final certificate has been issued embracing any of the irrigable lands within the District are hereby designated as subject to the provisions of the act of August 11, 1916 (39 Stat. 506); provided, that unentered public lands while in that status shall not be assessed by the District for any purpose.

## REGULATIONS AND DETERMINATIONS OF FACT

46. (a) The Secretary, after consultation with the District, may, so far as the purport thereof may be consistent with the provisions of this contract, make regulations and add to and modify them, as are proper and necessary to carry out the true intent and meaning of this contract, and to supply details of its administration.

(b) In the event of disputes among the parties hereto arising out of this contract involving questions of fact, and so far as the provisions hereof require a determination of fact to be made, the Secretary may, after consultation with the District, make a decision thereon which shall be conclusive upon the parties hereto.

## NOTICES

47. Any notice, demand or request required or authorized by this contract shall be deemed properly given, except where otherwise herein specifically provided, if mailed, postage prepaid, to the Regional Director, Bureau of Reclamation, Boise, Idaho, on behalf of the United States, and to the Secretary, Roza Irrigation District, Zillah, Washington, on behalf of the District. The designation of the person to be notified or the address of such person may be changed at any time by similar notice.

## DISCRIMINATION AGAINST EMPLOYEES OR APPLICANTS FOR EMPLOYMENT PROHIBITED

48. The District shall not discriminate against any employee or applicant for employment because of race, creed, color or national origin, and shall require an identical provision to be included in contracts relating to the performance of this contract. This provision, however, does not refer to, extend to, or cover the activities of the District which are not related to or involved in the performance of this contract.

## CONTINGENT ON APPROPRIATIONS OR ALLOTMENT OF FUNDS

49. The expenditure of any money or the performance of any work by the United States herein provided for, which may require appropriations of money by the Congress or the allotment of Federal funds, shall be contingent on such appropriations or allotments being made. The failure of the Congress to appropriate funds, or the failure of any allotment of funds, shall not, however, relieve the District from any obligations theretofore accrued under this contract, nor give the District the right to terminate this contract as to any of its executory features. No liability shall accrue against the United States in case such funds are not so appropriated or allotted.

## ASSIGNMENTS PROHIBITED; SUCCESSORS AND ASSIGNS OBLIGATED

50. The provisions of this contract shall apply to and bind the successors and assigns of the parties hereto, but no assignment or transfer of this contract, or any part thereof, or interest therein, shall be valid until approved by the Secretary.

## OFFICIALS NOT TO BENEFIT

51. No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this contract or to any benefit that may arise herefrom, but this restriction shall not be construed to extend to this contract if made with a corporation or company for its general benefit.

IN WITNESS WHEREOF, the parties hereto have caused this contract to be executed the day and year first above written.

THE UNITED STATES OF AMERICA

By /s/ Fred G. Aandahl
Assistant Secretary of the Interior

ROZA IRRIGATION DISTRICT

By /s/ H. Loyd Miller

(SEAL)

Attest:

/s/ Ross Morris
Secretary